Service Manual

ViewSonic VP930/b

Model No. VS10725

19” Color TFT LCD Display

(VP930/b_SM Rev. 1a Oct. 2005)

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Revision History

Revision	SM Editing Date	ECR Number	Description of Changes	Editor
1a	10/19/05		Initial Release	G. Han

TABLE OF CONTENTS

1.	Precautions and Safety Notices	1
2.	Specification	5
3.	Front Panel Function Control Description	10
4.	Circuit Description	17
5.	Adjustment Procedure	18
6.	Troubleshooting Flow Chart	30
7.	Recommended Spare Parts List	35
8.	Exploded Diagram and Exploded Parts List	43
9.	Block Diagram	50
10.	Schematic Diagrams	51
11.	PCB Layout Diagrams	57

1. Precautions and Safety Notices

1. Appropriate Operation

(1) Turn off the product before cleaning.
(2) Use only a dry soft cloth when cleaning the LCD panel surface.
(3) Use a soft cloth soaked with mild detergent to clean the display housing.
(4) Use only a high quality, safety approved AC/DC power cord.
(5) Disconnect the power plug from the AC outlet if the product will not be used for a long period of time.
(6) If smoke, abnormal noise, or strange odor is present, immediately switch the LCD display off.
(7) Do not touch the LCD panel surface with sharp or hard objects.
(8) Do not place heavy objects on the LCD display, video cable, or power cord.
(9) Do not use abrasive cleaners, waxes or solvents for your cleaning.
(10) Do not operate the product under the following conditions:
- Extremely hot, cold or humid environment.
- Areas containing excessive dust and dirt.
- Near any appliance generating a strong magnetic field.
- In direct sunlight.

2. Caution

No modification of any circuit should be attempted. Service work should only be performed after you are thoroughly familiar with all of the following safety checks and servicing guidelines.

3. Safety Check

Care should be taken while servicing this LCD display. Because of the high voltage used in the inverter circuit, the voltage is exposed in such areas as the associated transformer circuits.

4. LCD Module Handling Precautions

4.1 Handling Precautions

(1) Since front polarizer is easily damaged, pay attention not to scratch it.
(2) Be sure to turn off power supply when connecting or disconnecting input connector.
(3) Wipe off water drops immediately. Long contact with water may cause discoloration or spots.
(4) When the panel surface is soiled, wipe it with absorbent cotton or other soft cloth.
(5) Since the panel is made of glass, it may break or crack if dropped or bumped on hard surface.
(6) Since CMOS LSI is used in this module, take care of static electricity and ensure human earth when handling.
(7) Do not open or modify the Module Assembly.
(8) Do not press the reflector sheet at the back of the module in any direction.
(9) In the event that a Module must be put back into the packing container slot after it was taken out of the container, do not press the center of the CCFL Reflector edge. Instead, press at the far ends of the CFL Reflector edge softly. Otherwise the TFT Module may be damaged.
(10) At the insertion or removal of the Signal Interface Connector, be sure not to rotate or tilt the Interface Connector of the TFT Module.

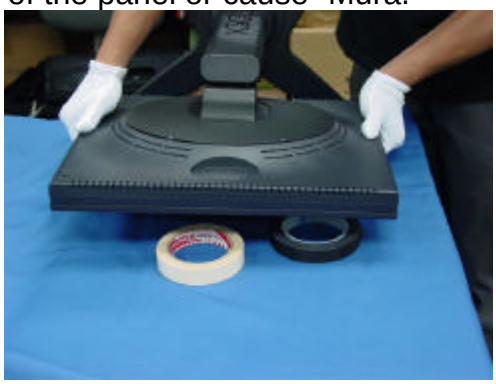
(11) After installation of the TFT Module into an enclosure (LCD monitor housing, for example), do not twist or bend the TFT Module even momentarily. When designing the enclosure, it should be taken into consideration that no bending/twisting forces may be applied to the TFT Module from outside. Otherwise the TFT Module may be damaged.

(12) The cold cathode fluorescent lamp in the LCD contains a small amount of mercury. Please follow local ordinances or regulations for disposal.

(13) The LCD module contains a small amount of materials having no flammability grade. The LCD module should be supplied with power that complies with the requirements of Limited Power Source (IEC60950 or UL1950), or an exemption should be applied for.

(14) The LCD module is designed so that the CCFL in it is supplied by a Limited Current Circuit (IEC60950 or UL1950). Do not connect the CCFL to a Hazardous Voltage Circuit.

Correct Methods:	Incorrect Methods:
Only touch the metal frame of the LCD panel or the front cover of the monitor.Do not touch the surface of the polarizer.	Surface of the LCD panel is pressed by fingers and that will probably cause “Mura”.
Take out the monitor with cushions	Taking out the monitor by grasping the LCD panel.That will probably cause “Mura”.

Place the monitor on a clean and soft foam pad. 	Placing the monitor on foreign objects. That will probably scratch the surface of the panel or cause “Mura.” 
	The panel is placed facedown on the lap. That will probably cause “Mura.”

2.SPECIFICATIONS

GENERAL specification

Test Resolution & Frequency	1280x1024 @ 60Hz
Test Image Size	Full Size
Contrast and Brightness Controls	Factory Default: Contrast = 70%, Brightness = 100%

VIDEO INTERFACE

Input Connector	D-SUB1= DB-15(Analog) D-SUB2= DB-15(Analog) DVI= DVI-D(Digital)
Default Input Connector	Defaults to the first detected input
Video Cable Strain Relief	Equal to twice the weight of the monitor for five minutes
Video Cable Connector DB-15 Pin out	Compliant DDC 2B
Video Signals	Video RGB (Analog) Separate Sync / Composite Sync / SOG TMDS (Digital)
Video Impedance	75 Ohms (Analog), 100 Ohms (Digital)
Maximum PC Video Signal	950 mV with no damage to monitor
Maximum Mac Video Signal	1250 mV with no damage to monitor
Sync Signals	TTL
DDC/CI	Compliant with Revision 1.0
Sync Compatibility	Separate Sync / Composite Sync / SOG

Video Compatibility	Shall be compatible with all PC type computers, Macintosh computers, and after market video cards
Resolution Compatibility	640 x 350, 640 x 400, 640 x 480, 640 x 870, 720 x 400, 720 x 480, 720 x 576, 800 x 600, 832 x 624, 1024 x 768, 1152 x 864, 1152 x 870, 1280 x 720, 1280 x 768, 1280 x 960, 1280 x 1024
Exclusions	Not compatible with interlaced video

Horizontal / Vertical Frequency

Horizontal Frequency	24 – 82 kHz
Vertical Refresh Rate	50 – 85 Hz
Maximum Pixel Clock	135 MHz
Sync Polarity	Independent of sync polarity

Table : 15 pin D-sub connector pin assignment

Pin Number	Pin Function
1	Red video input
2	Green video input
3	Blue video input
4	No Connection
5	Ground
6	Red video ground
7	Green video ground
8	Blue video ground
9	+5V
10	Ground
11	No connection
12	(SDA)
13	Horizontal sync (Composite sync)
14	Vertical sync
15	(SCL)

Timing Table

Item	Timing	Analog	Digital	Remark
1	640 x 350 @ 70 Hz, 31.5 KHz	Yes	Yes	DMT
2	640 x 400 @ 60 Hz, 31.5 KHz	Yes	Yes	DMT
3	640 x 400 @ 70 Hz, 31.5 KHz	Yes	Yes	DMT
4	640 x 480 @ 50 Hz, 24.7 KHz	Yes	Yes	DMT
5	640 x 480 @ 60 Hz, 31.5 KHz	Yes	Yes	DMT
6	640 x 480 @ 67 Hz, 35.0 KHz	Yes	Yes	For MAC
7	640 x 480 @ 72 Hz, 37.9 KHz	Yes	Yes	DMT
8	640 x 480 @ 75 Hz, 37.5 KHz	Yes	Yes	DMT
9	640 x 480 @ 85 Hz, 43.3 KHz	Yes	Yes	DMT
10	640 x 870 @ 75 Hz, 68.9 KHz	Yes	Yes	MAC
11	720 x 400 @ 70 Hz, 31.5 KHz	Yes	Yes	DMT
12	720 x 400 @ 85 Hz, 37.9 KHz	Yes	Yes	DMT
13	720 x 480 @ 60 Hz, 31.5 KHz	Yes	Yes	480p
14	720 x 576 @ 50 Hz, 31.3 KHz	Yes	Yes	576p
15	800 x 600 @ 50 Hz, 24.7 KHz	Yes	Yes	DMT
16	800 x 600 @ 56 Hz, 35.1 KHz	Yes	Yes	DMT
17	800 x 600 @ 60 Hz, 37.9 KHz	Yes	Yes	DMT
18	800 x 600 @ 72 Hz, 48.1 KHz	Yes	Yes	DMT
19	800 x 600 @ 75 Hz, 46.9 KHz	Yes	Yes	DMT
20	800 x 600 @ 85 Hz, 53.7 KHz	Yes	Yes	DMT
21	832 x 624 @ 75 Hz, 49.7 KHz	Yes	Yes	MAC
22	1024 x 768 @ 50 Hz, 39.6 KHz	Yes	Yes	DMT
23	1024 x 768 @ 60 Hz, 48.4 KHz	Yes	Yes	DMT
24	1024 x 768 @ 70 Hz, 56.5 KHz	Yes	Yes	DMT
25	1024 x 768 @ 72 Hz, 58.1 KHz	Yes	Yes	DMT

26	1024 x 768	@	75 Hz,	60.0	KHz	Yes	Yes	DMT
27	1024 x 768	@	75 Hz,	60.2	KHz	Yes	Yes	For MAC
28	1024 x 768	@	85 Hz,	68.7	KHz	Yes	Yes	DMT
29	1152 x 864	@	75 Hz,	67.5	KHz	Yes	Yes	DMT
30	1152 x 870	@	75 Hz,	68.7	KHz	Yes	Yes	For MAC
31	1280 x 720	@	50 Hz,	37.5	KHz	Yes	Yes	720p
32	1280 x 720	@	60 Hz,	45.0	KHz	Yes	Yes	720p
33	1280 x 768	@	50 Hz,	39.6	KHz	Yes	Yes	DMT
34	1280 x 768	@	60 Hz,	47.4	KHz	Yes	Yes	DMT
35	1280 x 768	@	60 Hz,	47.8	KHz	Yes	Yes	DMT
36	1280 x 768	@	75 Hz,	60.3	KHz	Yes	Yes	DMT
37	1280 x 768	@	85 Hz,	68.6	KHz	Yes	Yes	DMT
38	1280 x 960	@	50 Hz,	49.4	KHz	Yes	Yes	DMT
39	1280 x 960	@	60 Hz,	59.7	KHz	Yes	Yes	DMT
40	1280 x 960	@	75 Hz,	75.2	KHz	Yes	Yes	DMT
41	1280 x 1024	@	50 Hz,	52.7	KHz	Yes	Yes	DMT
42	1280 x 1024	@	60 Hz,	64.0	KHz	Yes	Yes	DMT
43	1280 x 1024	@	75 Hz,	80.0	KHz	Yes	Yes	DMT

User Presets

Number of User Presets (recognized timings) Available: 10 presets total in FIFO configuration

Panel Characteristics

Model number	AUO M190EN03 V.0/V.2
Type	Active Matrix TFT, PMVA technology
Active Size	19”
Pixel Arrangement	RGB Vertical Stripe
Pixel Pitch	0.294 mm
Glass Treatment	Anti Glare
# of Backlights	4 CCFL
Backlight Life	50,000 Hours (Typ) 40,000 Hours (Min)
Luminance (Center)– CT = 6500K, Contrast / Brightness =	250 cd/m2 (Typ after 30 minute warm up) 200 cd/m2 (Min after 30 minute warm up)
Brightness Uniformity	80%(Typ) / 75%(Min)
Contrast Ratio	1000:1 (Typ), 500:1 (Min)
Color Depth	16.7 million colors (8 bit panel)
Horizontal Viewing Angle	170 degress (Typ) @ CR>10
Vertical Viewing Angle	170degress (Typ) @ CR>10
Response Time 10%-90% @ Ta=25°C	On/Off Typical= 20 ms (Tr= 13 ms, Tf = 7 ms) GTG 8 ms (Avg)
Mercury	3.0 mg per lamp
Panel Defects	Please see Panel Quality Specifications.

IMAGE PERFORMANCE

Factory Defaults

Item	Defaults	Item	Defaults
Contrast	70%	720x400/640x400	720x400
Brightness	100%	Resolution Notice	Enabled
Color Temperature	6500K	Volume	N/A
Sharpness	100%	Balance	N/A
OSD H. Position	50%	Treble	N/A
OSD V. Position	50%	Bass	N/A
OSD Time Out	15 Sec		
OSD Background	Enabled		

Dimension

Width	412 mm (16.2 “)
Height (adjust to the top/bottom)	356 mm (14”) / 491mm(19.3”
Depth	289 mm (11.4”)
Monitor Weight	6.8 kg (15 lbs)

Dimension (Head Only / Wall Mount)

Width	412 mm (16.2”)
Height	336 mm (13.2”)
Depth	61 mm (2.4”)
Monitor Weight	4.2 kg (9.3 lbs)

Ergonomics

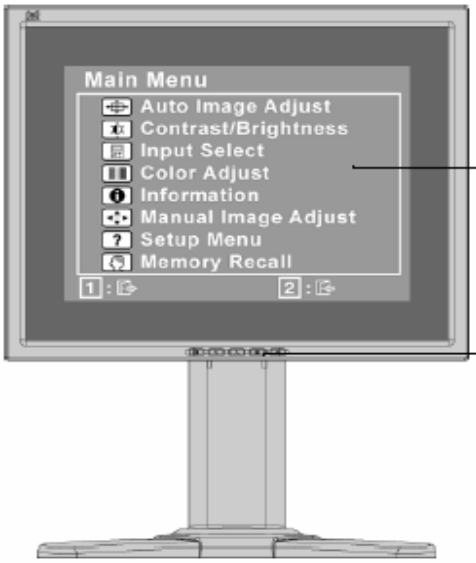
Tilt Up	≧20º
Tilt Down	From 0º down to -3º ~ -5 º
Swivel Right	≧135º
Swivel Left	≧135º
Height Adjust	0 ≧ 135 mm
Pivot	0~90 degress (clockwise)

3. Front Panel Function Control Description

3.1 Location of Controls

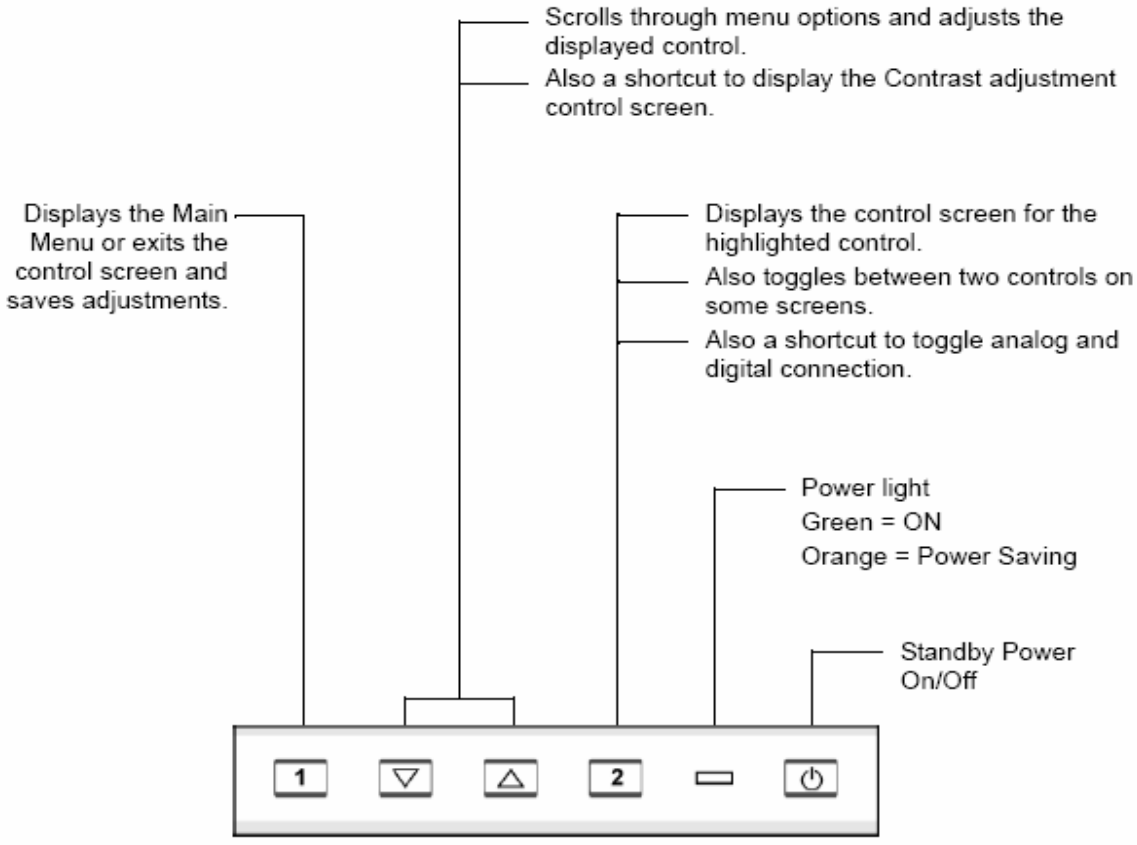
Adjusting the Screen Image

Use the buttons on the front control panel to display and adjust the OSD controls which display on the screen. The OSD controls are explained at the top of the next page and are defined in "Main Menu Controls" on page 11.



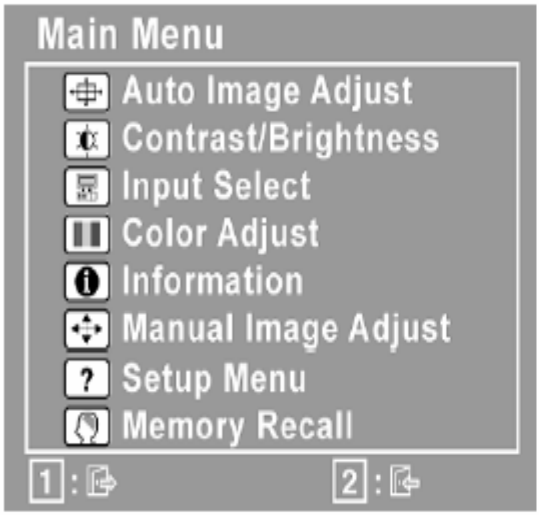
Main Menu
with OSD controls

Front Control Panel
shown below in detail


Scrolls through menu options and adjusts the displayed control.
Also a shortcut to display the Contrast adjustment control screen.
Displays the Main Menu or exits the control screen and saves adjustments.
Displays the control screen for the highlighted control.
Also toggles between two controls on some screens.
Also a shortcut to toggle analog and digital connection.
Power light
Green = ON
Orange = Power Saving
Standby Power On/Off
1
2

Do the following to adjust the display setting:

1. To display the Main Menu, press button [1].



NOTE: All OSD menus and adjustment screens disappear automatically after about 15 seconds. This is adjustable through the OSD timeout setting in the setup menu.

2. To select a control to adjust, press▲or▼to scroll up or down in the Main Menu.
3. After the desired control is selected, press button [2]. A control screen like the one shown below appears.
4. To adjust the setting, press the up▲or down▼buttons.
5. To save the adjustments and exit the menu, press button [1] *twice*.

The following tips may help you optimize your display:

- Adjust the computer's graphics card so that it outputs a 1280 x 1024 @ 60Hz video signal to the LCD display. (Look for instructions on "changing the refresh rate" in the graphics card's user guide.)
- If necessary, make small adjustments using H. POSITION and V. POSITION until the screen image is completely visible. (The black border around the edge of the screen should barely touch the illuminated "active area" of the LCD display.)

Main Menu Controls

Adjust the menu items shown below by using the up▲and down▼buttons.

Control	Explanation

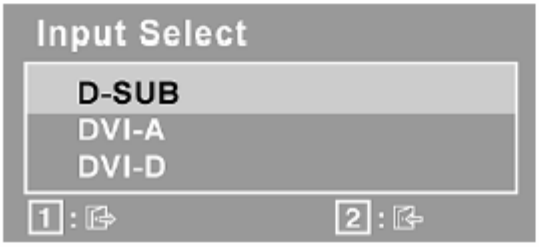
Auto Image Adjust automatically sizes, centers, and fine tunes the video signal to eliminate waviness and distortion. Press the [2] button to obtain a sharper image.

NOTE: Auto Image Adjust works with most common video cards. If this function does not work on your LCD display, then lower the video refresh rate to 60 Hz and set the resolution to its pre-set value.

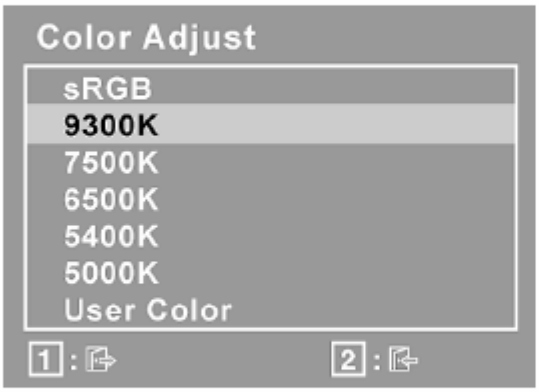
Contrast adjusts the difference between the image background (black level) and the foreground (white level).

Brightness adjusts background black level of the screen image.

Input Select allows the user to toggle between an analog and a digital signal.



Color Adjust provides several color adjustment modes, including preset color temperatures and a User Color mode which allows independent adjustment of red (R), green (G), and blue (B). The factory setting for this product is 6500K (6500 Kelvin).



sRGB-This is quickly becoming the industry standard for color management, with support being included in many of the latest applications. Enabling this setting allows the LCD display to more accurately display colors the way they were originally intended. Enabling the sRGB setting will cause the Contrast and Brightness adjustments to be disabled.

9300K - Adds blue to the screen image for cooler white (used in most office settings with fluorescent lighting).

7500K - Adds blue to the screen image for cooler white (used in most office settings with fluorescent lighting).

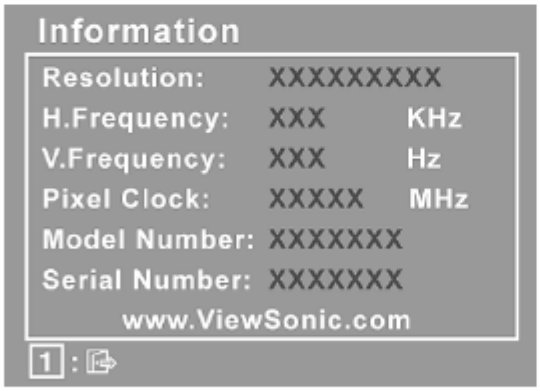
6500K - Adds red to the screen image for warmer white and richer red.

5400K - Adds green to the screen image for a darker color.

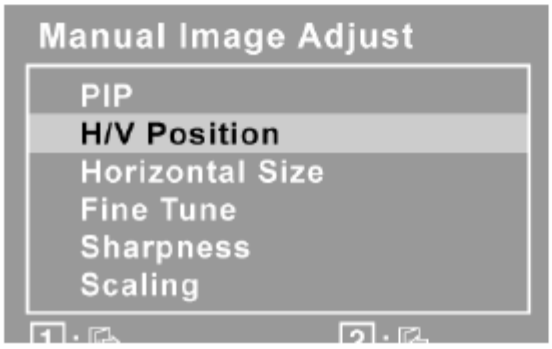
5000K - Adds blue and green to the screen image for a darker color.

User Color - Individual adjustments for red (R), green (G), and blue (B).
1. To select color (R, G or B) press button [2].
2. To adjust selected color, press▲or▼.
Important: If you select RECALL from the Main Menu when the product is set to a Preset Timing Mode, colors return to the 6500K factory preset.

Information displays the timing mode (video signal input) coming from the graphics card in the computer, the LCD model number, the serial number, and the ViewSonic® website URL. See your graphics card's user guide for instructions on changing the resolution and refresh rate (vertical frequency).
NOTE: VESA 1280 x 1024 @ 60Hz (recommended) means that the resolution is 1280 x 1024 and the refresh rate is 60 Hertz.



Manual Image Adjust displays the Manual Image Adjust menu.



H./V. Position (Horizontal/Vertical Position) moves the screen image left or right and up or down.

Horizontal Size adjusts the width of the screen image.

Fine Tune sharpens the focus by aligning text and/or graphics with pixel boundaries.

Sharpness adjusts the clarity and focus of the screen image.

Scaling adjusts the video input signal to the screen size other than 1280 x 1024 using the following options.

1:1 adjusts the video signal so that the height and width of the picture are the same.

Fill all adjusts the video signal to fill the screen.

Fill Aspect Ratio maintains the correct video signal proportions for different resolutions.

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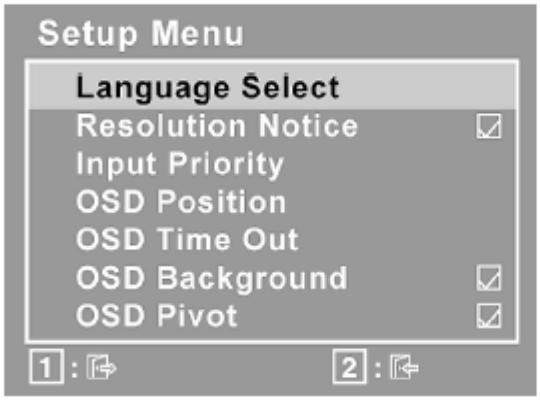
Setup Menu displays the menu shown below:



Language Select allows the user to choose the language used in the menus and control screens.

Resolution Notice allows the user to enable or disable this notice.

Input Priority If multiple computers will be connected to the display, this function can be used to select which computer has priority depending on the selected Input Priority, the display will do a one time detection for available inputs when first powered on.

OSD Position allows the user to move the OSD menus and control screens.

Control	Explanation
	OSD Timeout sets the length of time the OSD screen is displayed. For example, with a "15 second" setting, if a control is not pushed within 15 seconds, the display screen disappears.
	OSD Background allows the user to turn the OSD background On or Off.
	OSD Pivot This function is used to rotate the OSD menu, changing the OSD screen to Landscape or Portrait mode.
	Memory Recall returns the adjustments back to factory settings if the display is operating in a factory Preset Timing Mode listed in the Specifications of this manual. **Exception:** This control does not affect changes made with the User Color control, Language Select or Power Lock setting.

Hot Key for Function Controls

Buttons:	Functions:
[1]	Main menu
[2]	Input Select
[Up] or [Dn]	To immediately activate Contrast menu. It should be change to Brightness OSD by push button [2]
[Up] + [Dn]	Recall both of Contrast and Brightness to default
[1] + [2]	Toggle 720x400 and 640x400 mode when input 720x400 or 640x400 mode.
[1] + [Up] + [Dn]	Auto White Balance.(Not shown on user's guide)
[1] + [Dn]	Power Lock
[1] + [Up]	OSD Lock
[1] + [Dn] + [2]	Didable Theft Defence function
[Up] + [PW] + Main Power On	All reset
No signal + [PW] +[2] + Main Power on	Burning mode
Signal + [PW] +[2] + Main Power on	Factory Mode
Remark : All the short cuts function are only available while OSD off	

4. Circuit Description

1. WORKING THEOREM

A. Scaler

The TSU66AJ is total solution graphics processing IC for LCD monitors with panel resolutions up to SXGA. It is configured with a high-speed integrated triple-ADC/PLL, an integrated DVI receiver, a high quality display processing engine, and an integrated output display interface that can support LVDS panel interface format. To further reduce system costs, the TSU66AJ also integrates intelligent power management control capability for green-mode requirements and spread-spectrum support for EMI management. The TSU66AJ incorporates the world's first coherent oversampled RGB graphics ADC in a monitor controller system1. The oversampling ADC samples the input RGB signals at a frequency that is much higher than the signal source pixel rate. This can preserve details in the video signal that ordinarily would be lost due to input signal jitter or bandwidth limitations in non-oversampled systems. The TSU66AJ also incorporates a new Dynamic Frame Rate (DFR) generator2 for the digital output video to the display panel that preserves the advantages of a fixed output clock rate, while eliminating the output end of frame short-line.

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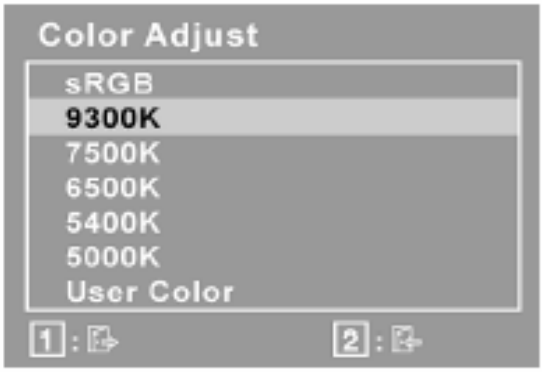
B. MCU:

The MTV416M micro-controller is an 8051 CPU core embedded device targeted for LCD Monitor or LCD TV application. It includes an 8051 CPU core, a 128K-byte internal program Flash-ROM, a 768-byte SRAM, 4 channels of PWM DAC, 4 channels of 6-bit ADC, and a built-in sync-processor. It also includes two IIC Slave B ports, supporting VESA DDC/CI for both D-sub and DVI interfaces, and a Boot-Code-Free ISP (In System Programming).

Color Adjust provides several color adjustment modes, including preset color temperatures and a User Color mode which allows independent adjustment of red (R), green (G), and blue (B). The factory setting for this product is 6500K (6500 Kelvin).



sRGB-This is quickly becoming the industry standard for color management, with support being included in many of the latest applications. Enabling this setting allows the LCD display to more accurately display colors the way they were originally intended. Enabling the sRGB setting will cause the Contrast and Brightness adjustments to be disabled.

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2. To adjust selected color, press ▲ or ▼.

Important: If you select RECALL from the Main Menu when the product is set to a Preset Timing Mode, colors return to the 6500K factory preset.

5-1.1 Product
17” LCD Monitor

5-1.2 Test Equipment
Color Video Signal & Pattern (or PC with SXGA resolution)

5-1.3 Test Condition
Before function test and alignment, each LCD Monitor should be run-in and warmed up for at least
30 minutes with the following conditions:
(a) In room temperature,
(b) With full-white screen, RGB, and Black
(c) With cycled display modes,
640*480 (H=43.27 kHz, V=85Hz)
800*600 (H=53.7 kHz, V=85Hz)
1024*768 (H=68.67 kHz, V=85Hz)
1280*1024(H=80.0KHz, V=75Hz)

5-1.4 Test Display Modes & Pattern

5-1.4.1 Compatible Modes

Analog Digital

Item	Timing				
1	640 x 350	@	70 Hz,	31.5	KHz
2	640 x 400	@	60 Hz,	31.5	KHz
3	640 x 400	@	70 Hz,	31.5	KHz
4	640 x 480	@	50 Hz,	24.7	KHz
5	640 x 480	@	60 Hz,	31.5	KHz
6	640 x 480	@	67 Hz,	35.0	KHz
7	640 x 480	@	72 Hz,	37.9	KHz
8	640 x 480	@	75 Hz,	37.5	KHz
9	640 x 480	@	85 Hz,	43.3	KHz
10	640 x 870	@	75 Hz,	68.9	KHz
11	720 x 400	@	70 Hz,	31.5	KHz
12	720 x 400	@	85 Hz,	37.9	KHz
13	720 x 480	@	60 Hz,	31.5	KHz
14	720 x 576	@	50 Hz,	31.3	KHz
15	800 x 600	@	50 Hz,	24.7	KHz
16	800 x 600	@	56 Hz,	35.1	KHz
17	800 x 600	@	60 Hz,	37.9	KHz
18	800 x 600	@	72 Hz,	48.1	KHz
19	800 x 600	@	75 Hz,	46.9	KHz
20	800 x 600	@	85 Hz,	53.7	KHz
21	832 x 624	@	75 Hz,	49.7	KHz
22	1024 x 768	@	50 Hz,	39.6	KHz
23	1024 x 768	@	60 Hz,	48.4	KHz
24	1024 x 768	@	70 Hz,	56.5	KHz
25	1024 x 768	@	72 Hz,	58.1	KHz
26	1024 x 768	@	75 Hz,	60.0	KHz
27	1024 x 768	@	75 Hz,	60.2	KHz
28	1024 x 768	@	85 Hz,	68.7	KHz
29	1152 x 864	@	75 Hz,	67.5	KHz
30	1152 x 870	@	75 Hz,	68.7	KHz
31	1280 x 720	@	50 Hz,	37.5	KHz
32	1280 x 720	@	60 Hz,	45.0	KHz
33	1280 x 768	@	50 Hz,	39.6	KHz
34	1280 x 768	@	60 Hz,	47.4	KHz
35	1280 x 768	@	60 Hz,	47.8	KHz
36	1280 x 768	@	75 Hz,	60.3	KHz
37	1280 x 768	@	85 Hz,	68.6	KHz
38	1280 x 960	@	50 Hz,	49.4	KHz
39	1280 x 960	@	60 Hz,	59.7	KHz

40	1280 x 960	@	75 Hz,	75.2	KHz
41	1280 x 1024	@	50 Hz,	52.7	KHz
42	1280 x 1024	@	60 Hz,	64.0	KHz
43	1280 x 1024	@	75 Hz,	80.0	KHz

5-1.5.2 Auto Image Adjust
Please select and enter "***Auto Image Adjust***" function on Main Menu to see if it is workable. The "***Auto Image Adjust***" function is aimed to offer a better screen quality by built-in ASIC. For optimum screen quality, the user has to adjust each function manually.

5-1.5.3 Firmware
Test Pattern: Burn in Mode (Refer to Chapter III-3. Hot Keys for Function Controls)
- Make sure the F/W is the latest version.

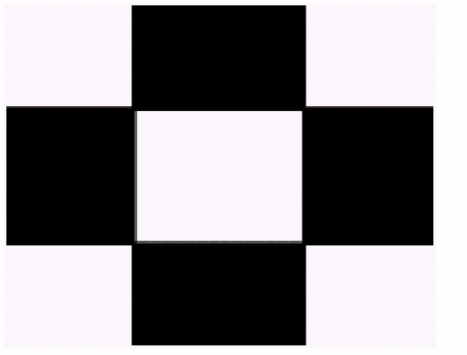
5-1.5.4 DDC
Test Pattern: EDID program
- Make sure it can pass test program.

5-1.5.5 Fine Tune and Sharpness
Test Signal: 1280 x 1024 @ 60.0kHz
Test Pattern: Line Moiré Pattern
- Check and see if the image has noise and focus performs well. Eliminate visual line bar.
- If not, readjust by the following steps:
(a) Select and enter "**Fine Tune**" function on "**Manual Image Adjust**" to adjust the image to eliminate visual wavy noise.
(b) Then, select and enter "**Sharpness**" function to adjust the clarity and focus of the screen image.

5-1.5.6 White Balance
Test Signal: 640*480@60Hz
Test Pattern: Full White and Black Pattern

5-1.5.7 R, G, B, Colors Contrast
Test Signal: 1280 x 1024 @ 60.0kHz
Test Pattern: R, G, B, Color Intensities Pattern and 16 Gray Scale Pattern
- Check and see if each color is normal and distinguishable.
- If not, please return the unit to repair area.

5-1.5.8 Screen Uniformity and Flicker
Test Signal: 1280 x 1024 @ 60.0kHz
Test Pattern: Full White Pattern
- Check and see if it is in normal condition.



5-1.5.9 Dead Pixel and Line
Test Signal: 1280 x 1024 @ 60.0kHz
Test Pattern: Dark and White Screen Pattern
- Check and see if there are dead pixels on LCD panel with shadow gauge and filter film.
- The total numbers and distance of dead pixels should be compliant with the spec.

5-1.5.10 Mura
Test Pattern: White, RGB, Black, & Grey
Test Tool: 10 % ND Filter
- Check if the Mura can pass 10 % ND Filter.

5-1.5.11 Check for Secondary Display Modes
Test Signal:
Analog: 640*350@70Hz; 640*400@60Hz;640*480@50/60/67/72/75/85Hz;
720*400@70Hz/85Hz; 720*480@60Hz; 720*576@50Hz; 800*600@56/60/72/75/85Hz;
832*624@75Hz, 1024*768@50/60/70/72/75/85Hz; 1152*864@75Hz; 1152*870@75Hz;
1280*720@50/60Hz; 1280*768@50/60/75/85Hz; 1280*960@50/60/75Hz; 1280*1024@50/60/75Hz

Digital: 640*350@70Hz; 640*400@60Hz;640*480@50/60/67/72/75/85Hz;
720*400@70Hz/85Hz; 720*480@60Hz; 720*576@50Hz; 800*600@56/60/72/75/85Hz;
832*624@75Hz, 1024*768@50/60/70/72/75/85Hz; 1152*864@75Hz; 1152*870@75Hz;
1280*720@50/60Hz; 1280*768@50/60/75/85Hz; 1280*960@50/60/75Hz; 1280*1024@50/60/75Hz

- Normally when the primary mode 1280*1024@60Hz is well adjusted and compliant with the specification, the secondary display modes will be great possible to be compliant with the spec. But we still have to check with the general test pattern to make sure every secondary is compliant with the specification.

5-1.5.12 All Modes Reset
After final QC step, we have to erase all saved changes again and restore the factory defaults. You should do “All Mode Reset” again.

5-1.5.13 Power off Monitor
Turn off the monitor by pressing “Power” button.

5-2. Firmware Upgrade Procedure

5-2.1 Equipment Needed

- VP930 Monitor
- Fixture for Firmware Upgrade
- Power Adapter (P/N: 47.58201.001) *1 for Fixture
- VGA Cable (P/N: 42.59901.003) *1(Pin 4, 11 should be connected to GND)
- PC (Personal Computer)
- LPT Cable (P/N: 42.59906.001) *1
- Firmware Upgrade Program
- One additional monitor for checking the program execution PC

Fixture
Printer Port
VP930

5.3 . EDID Procedure

DDC User's manual

1. Hardware installation

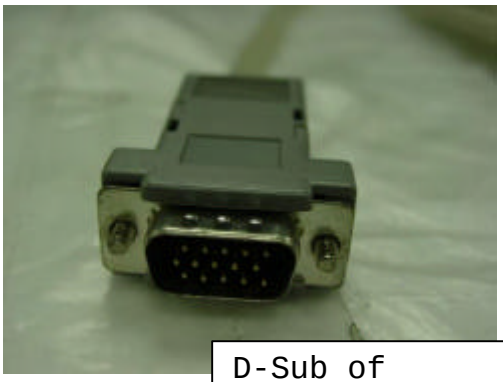
A. The EDID cable has equipped 2 different terminals;
one is male 25 pin printer connector and another side is male 15 pin D-sub connecter.

B. Connect the EDID cable from PC Printer port to monitor D-sub connector.

C. **Make sure the monitor was working under power saving mode and keep it at "Power Saving state" during DDC process.**

EDID-Kit Cable

PC printer port 25pin connector



D-Sub of Monitor 15pin VGA

2. Programming procedure

A. Normally, you received a EDID zip file of new model. You need to unzipped it.

B. There will need the following files for DDC program: (VP730 is an example)

1. DPS.EXE
2. VP930.BAT
3. VP930.DDC
4. VP930.CFG
5. VP930.DPS

C. Execute the **VP930.BAT** (for VP930 monitor only) from Programming PC. Below screen will display.

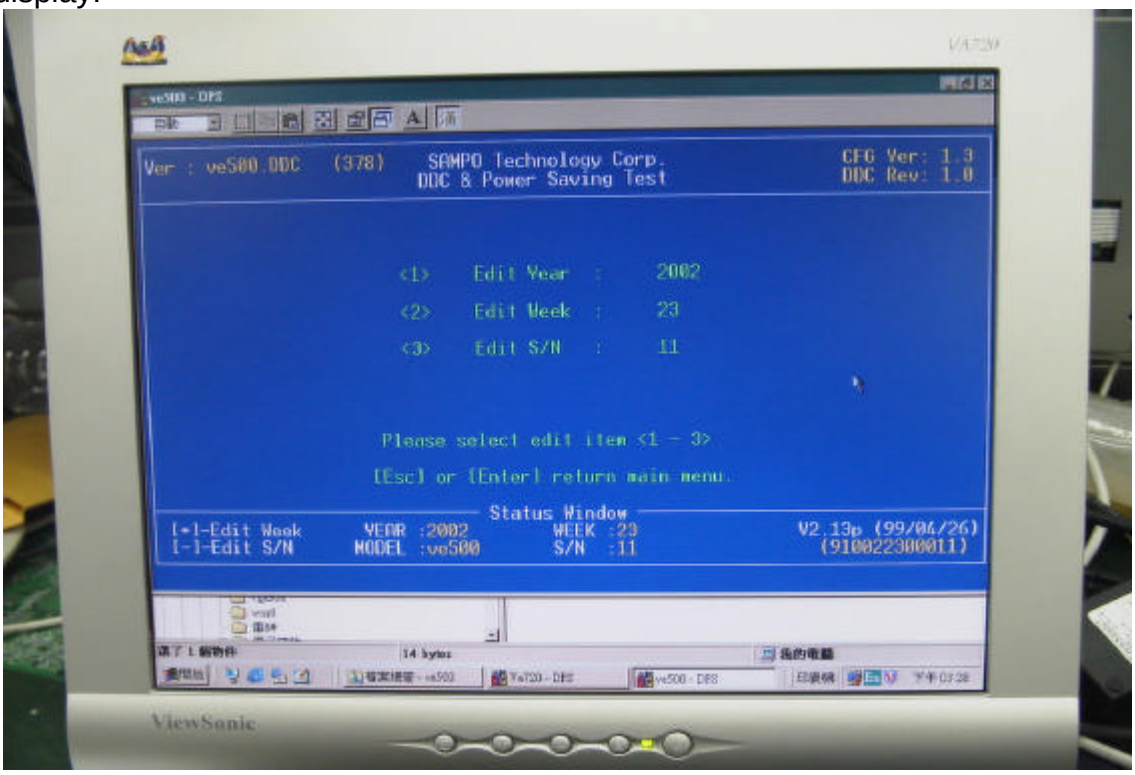


Fig-DDC1

Refer to Fig-DDC1; you have to select the required item if the display data was not you want.

Press 1: For year, the cursor will move to the column behind “Edit Year” than you can key in the data you want after that press enter to exit and return. (It needs 4 numbers for this data)

Press 2: For week, the cursor will move to the column behind “Edit Week” than you can key in the data you want after that press enter to exit and return. (This data is within 1 ~ 53.)

Press 3: For S/N,, the cursor will move to the column behind “Edit S/N” than you can key in the data you want after that press enter to exit and return. (This data is within 0 ~ 99999, 5 numbers max.)

D. **Press "ESC" or "Enter" key** to return main menu, the Fig-DDC2 will be displayed and the correct serial number will show on right corner of screen.

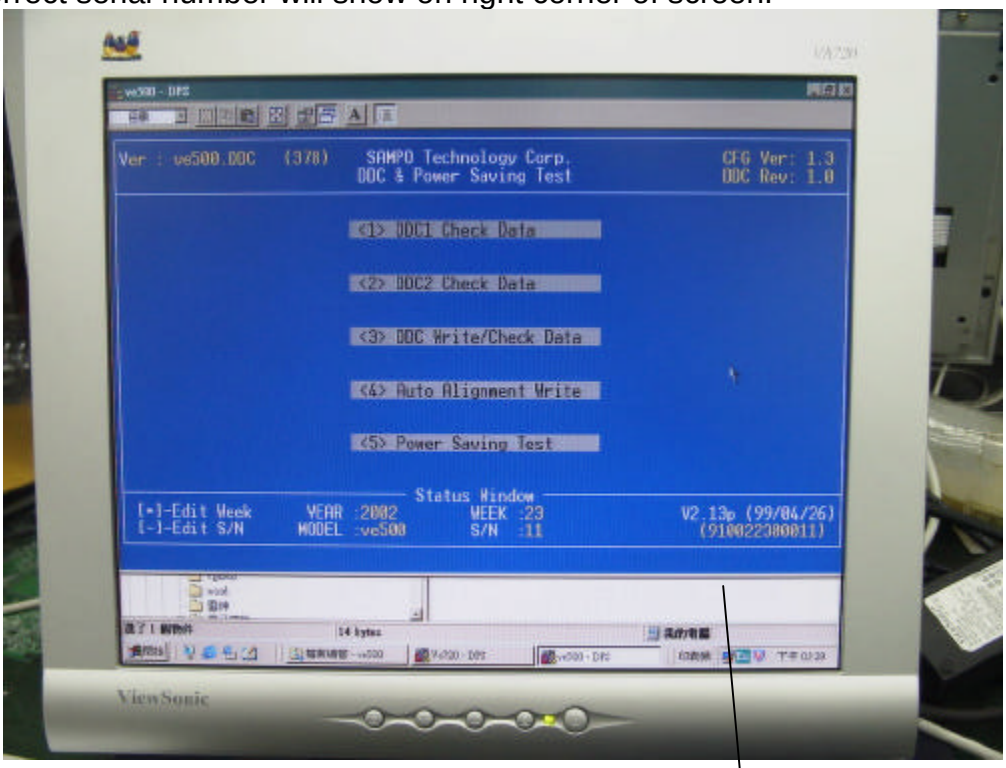


Fig-DDC2

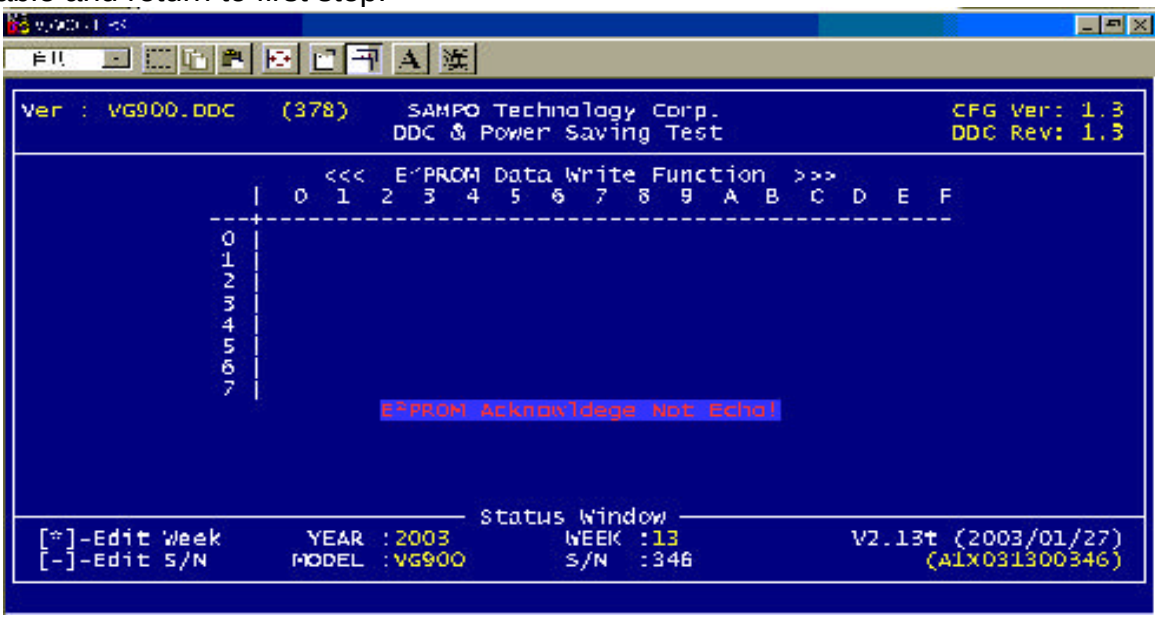
Display updated serial number.

Under Fig-DDC2, you could change the "Week" data by press "*" key and the "S/N" data by press "-" key.

Press 3 "DDC Writer/Check Data": The Kit will start to program new data of EDID into monitor, all DDC data will display on the screen after programming.
Please refer to Fig-DDC3 below, the DDC process is finished.

Fig-DDC3

The message (E2PROM Acknowledge Not Echo) will display on the screen if there is any error detected by Programming PC. If error message is happened, please re-check the connection of cable and return to first step.



Please refer to the Viewsonic EDID data format that was printing on ID label.

PPPYYWWxxxxx

PPP = Viewsonic Regional Product ID Code, EX. VE500 is “910”, VE700 is “A10” and VG900 is “A1C ”.

YY= 2 digits of Manufacturing year. (range 1996-2015).

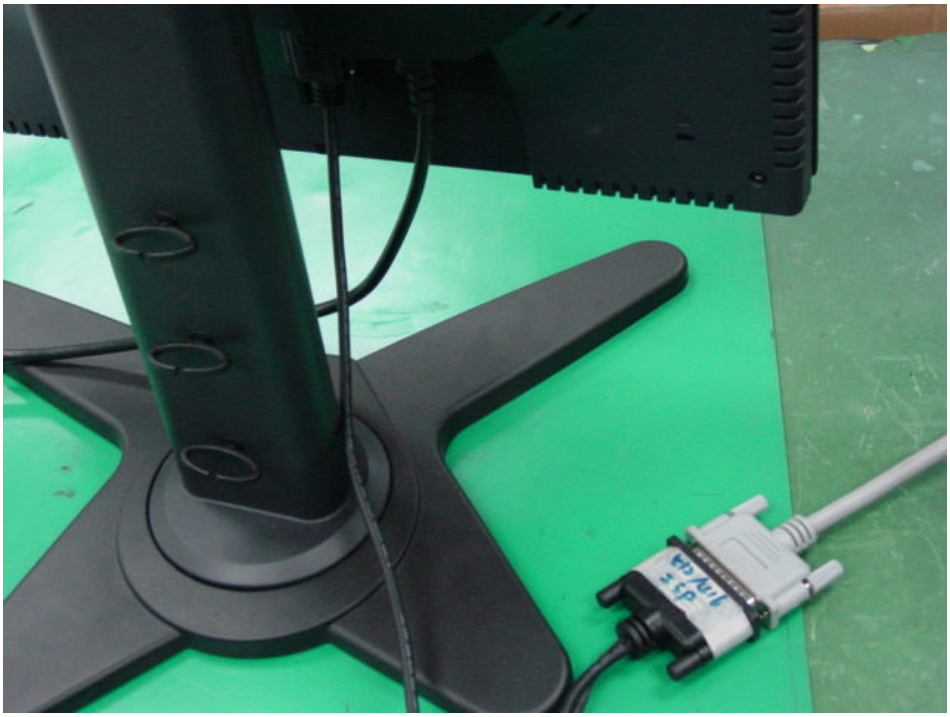
WW = 2 digits of Manufacturing week (range 01-54).

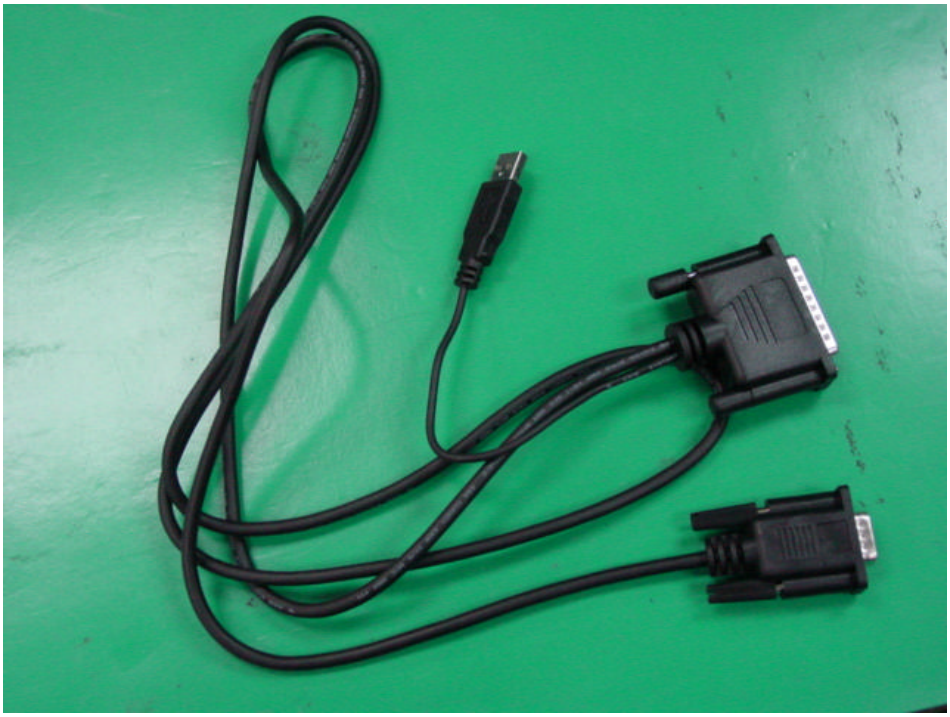
xxxxx = 5 digits of Sequence number. (range 00001-99999).

5.4 . ISP procedure

Connection of ＩＳＰ Kit：

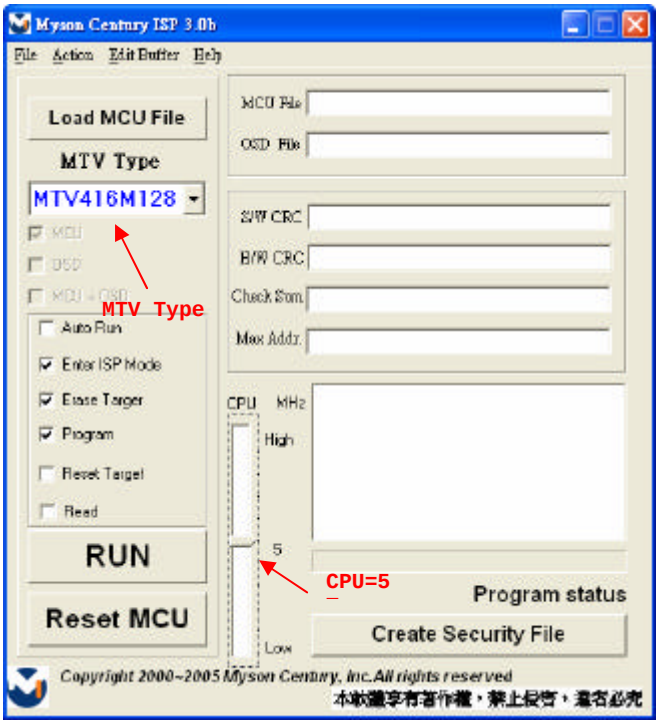
Using ISP cable connect PC Print port
Using VGA cable connect monitor (destination).



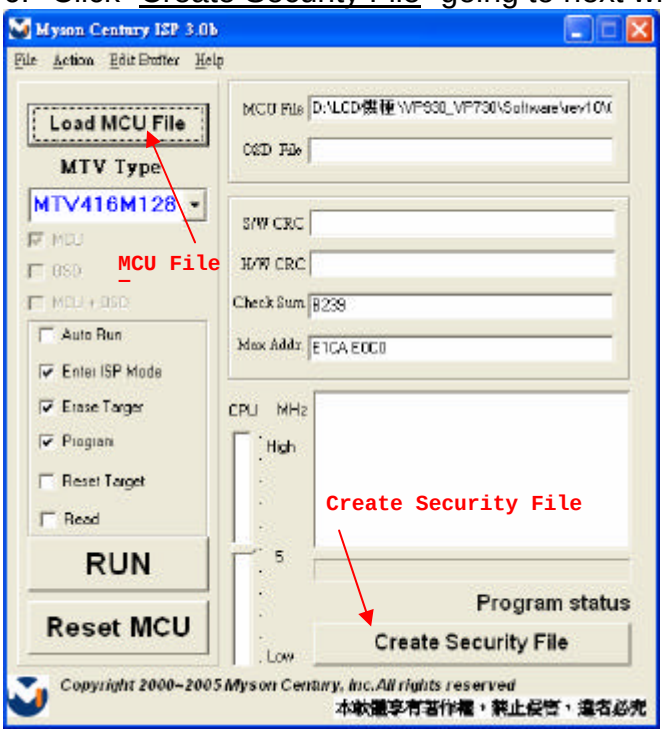


Setting of ISP program on PC

1. Setup MYSON ISP program,
2. Execute ISP program to get the window below
3. Select “MTV416M128” MCU type,
4. Select CPU=5 MHz

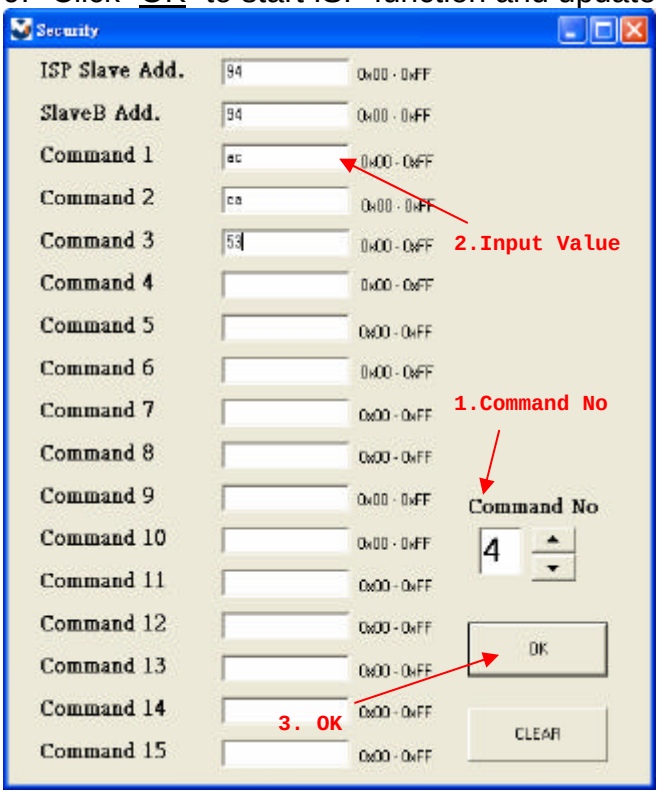


5. Click “Load MCU file” and then find the updated firmware code.
6. Click “Create Security File” going to next window

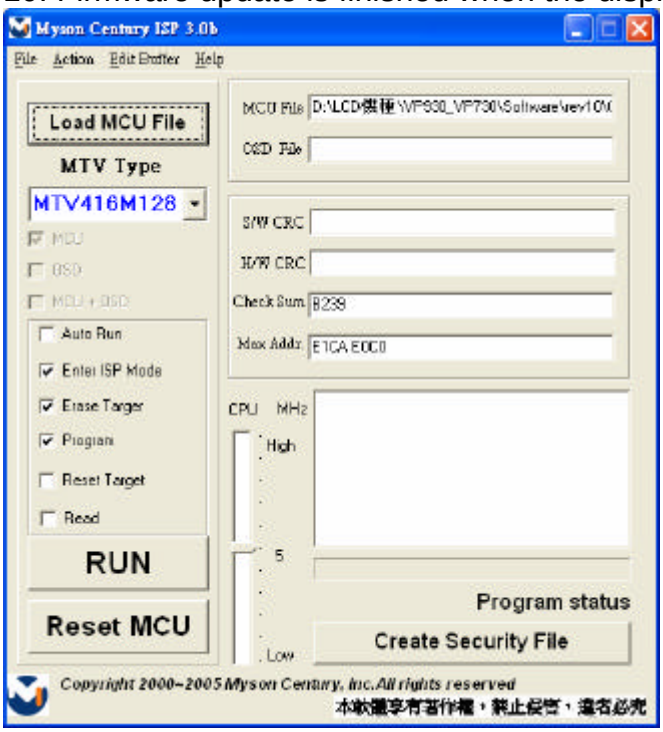


7. Select Command No=4

8. Put ISP Slave Add=94 ; Slave B Add=94 ; Command 1=ac ; Command 2=ca Command 3=53
9. Click “OK” to start ISP function and update the firmware into Monitor.

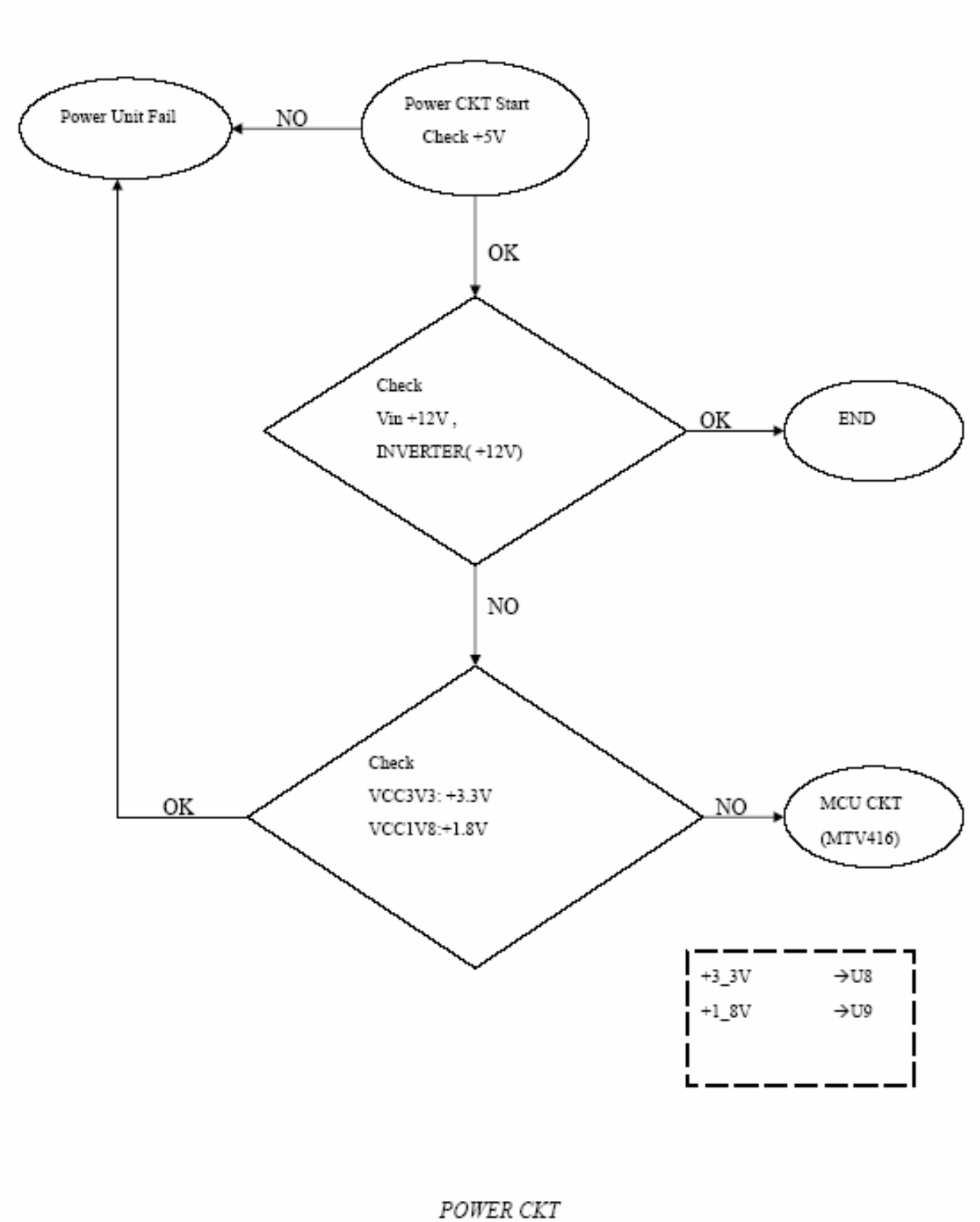


10. Firmware update is finished when the display backed to the window below.

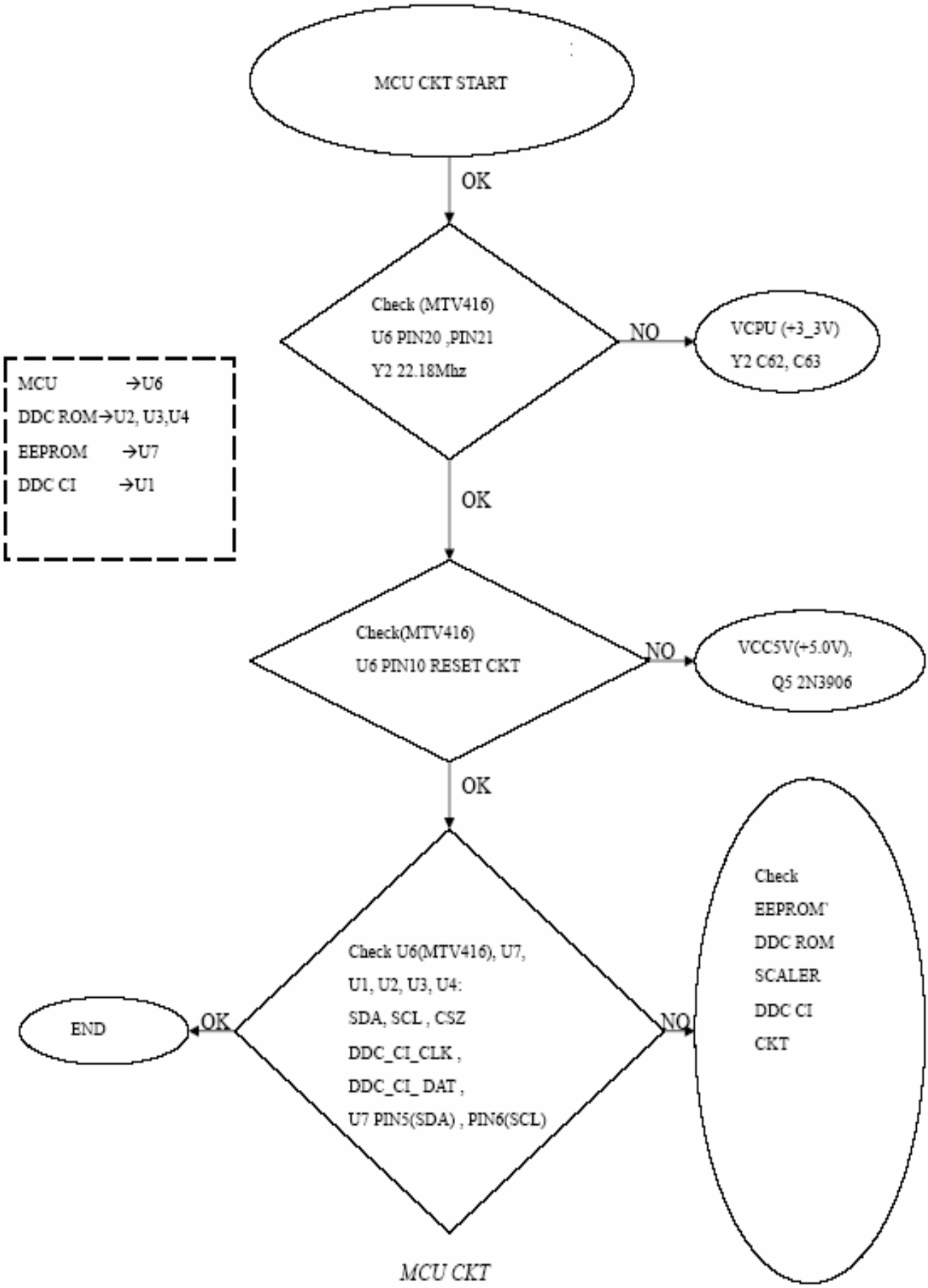


6.TROUBLE SHOOTING FLOW CHART

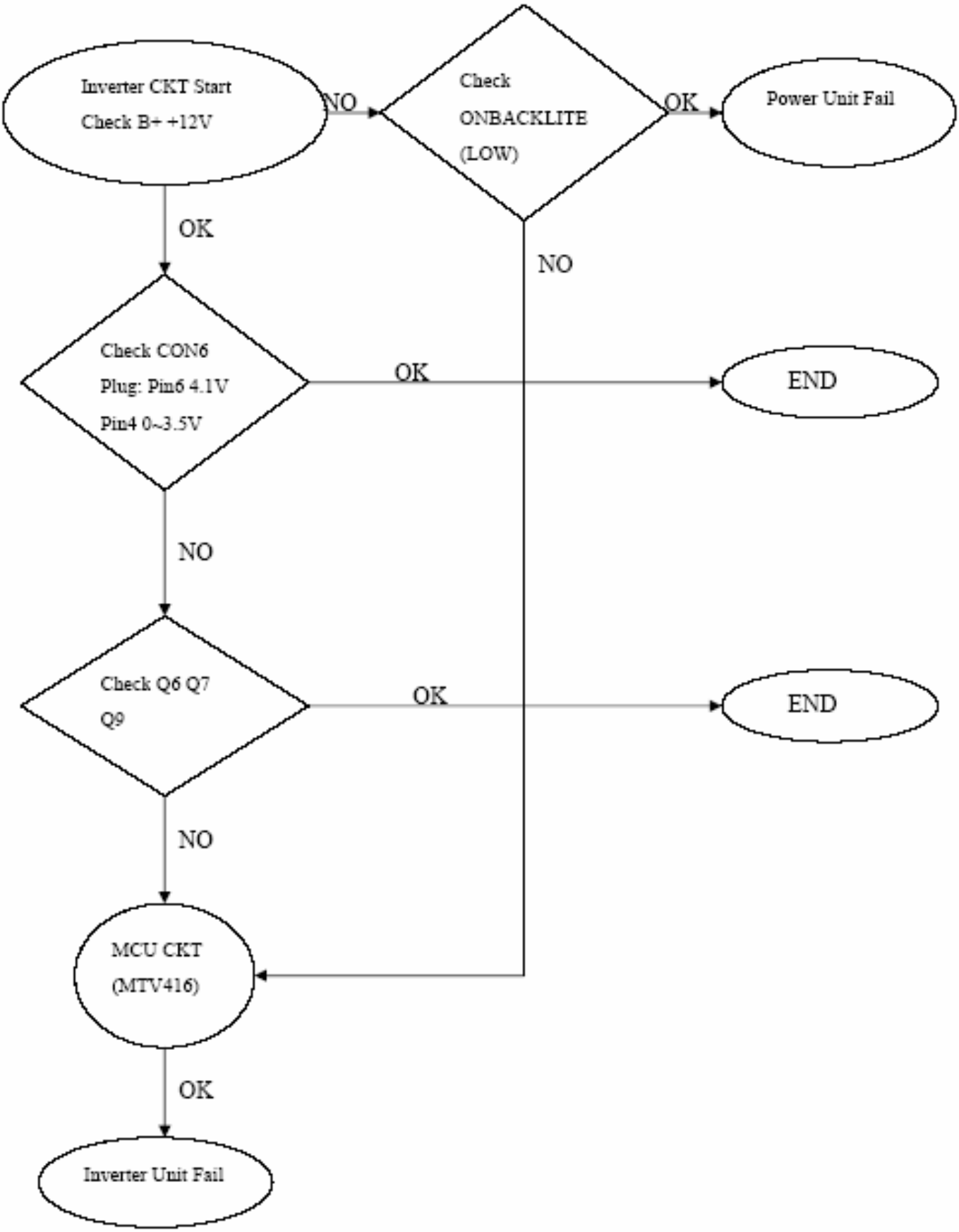
Trouble Shooting



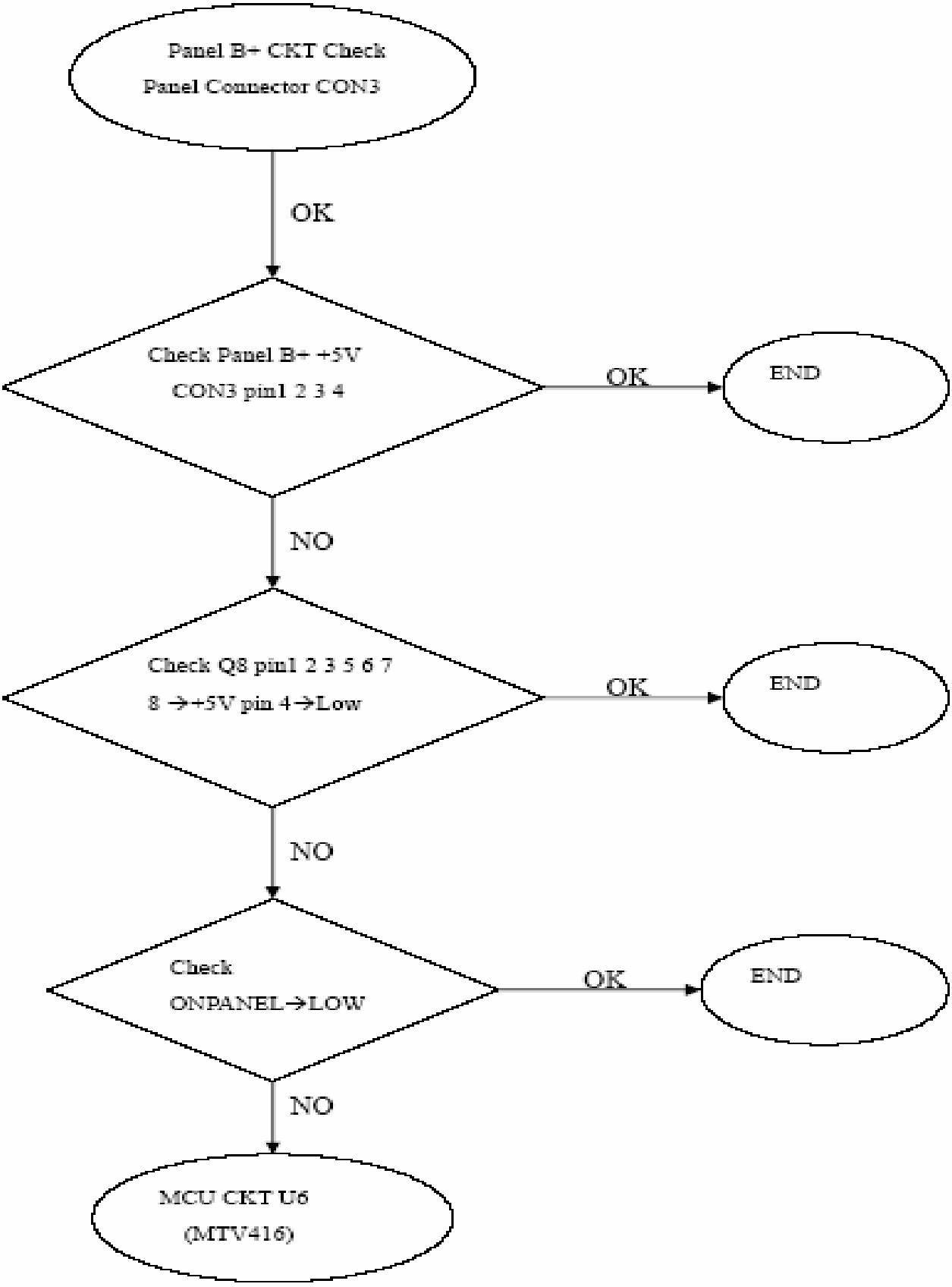
POWER CKT


MCU CKT START
OK
Check (MTV416)
U6 PIN20 ,PIN21
Y2 22.18Mhz
NO
VCPU (+3_3V)
Y2 C62, C63
MCU →U6
DDC ROM→U2, U3,U4
EEPROM →U7
DDC CI →U1
OK
Check(MTV416)
U6 PIN10 RESET CKT
NO
VCC5V(+5.0V),
Q5 2N3906
OK
Check U6(MTV416), U7,
U1, U2, U3, U4:
SDA, SCL , CSZ
DDC_CI_CLK ,
DDC_CI_ DAT ,
U7 PIN5(SDA) , PIN6(SCL)
OK
END
NO
Check
EEPROM'
DDC ROM
SCALER
DDC CI
CKT

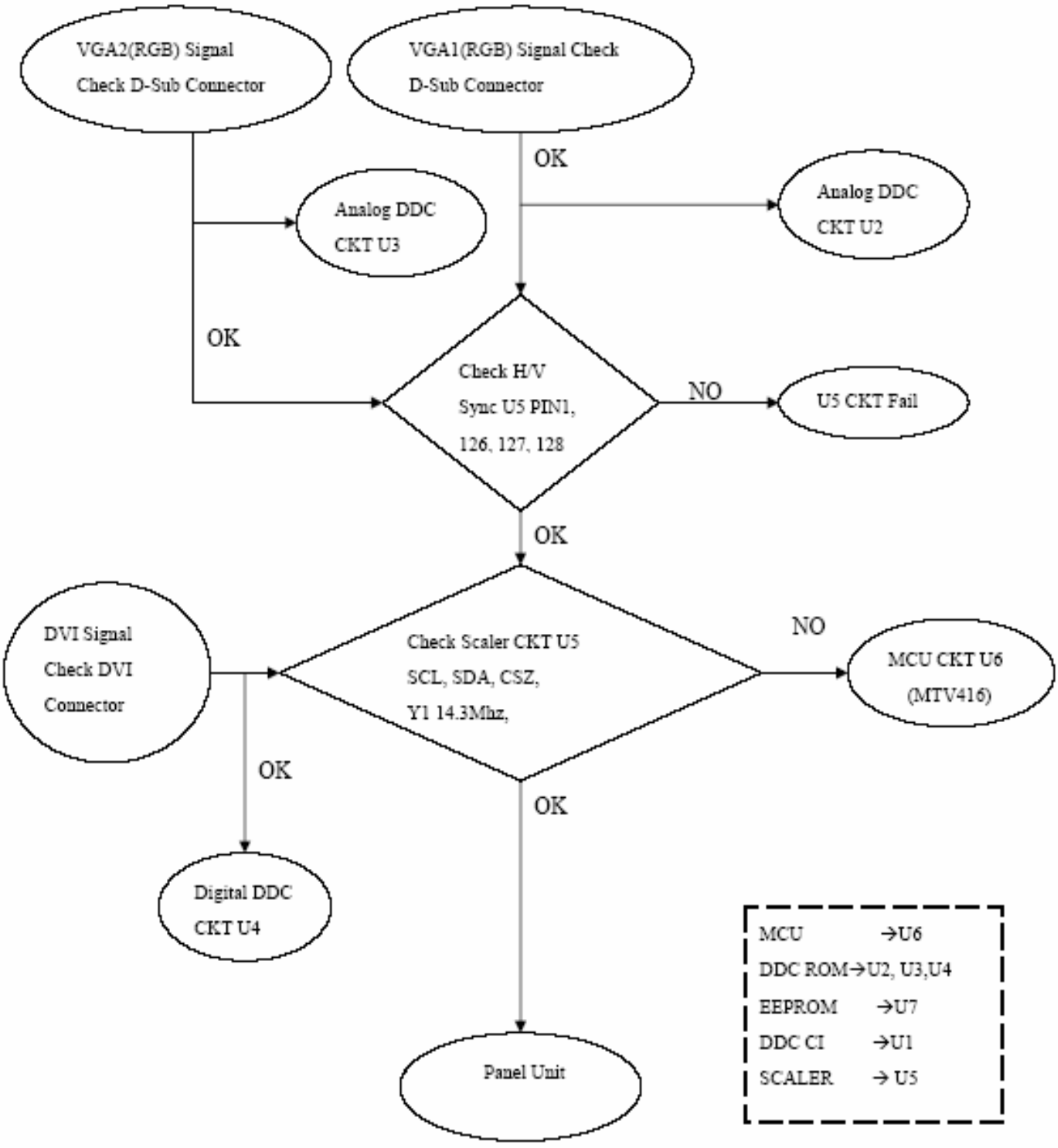
MCU CKT



INVERTER CKT


Panel B+ CKT Check
Panel Connector CON3
OK
Check Panel B+ +5V
CON3 pin1 2 3 4
OK
END
NO
Check Q8 pin1 2 3 5 6 7
8 →+5V pin 4→Low
OK
END
NO
Check
ONPANEL→LOW
OK
END
NO
MCU CKT U6
(MTV416)

Panel B+ CKT


VGA2(RGB) Signal
Check D-Sub Connector
VGA1(RGB) Signal Check
D-Sub Connector
OK
Analog DDC
CKT U3
Analog DDC
CKT U2
OK
Check H/V
Sync U5 PIN1,
126, 127, 128
NO
U5 CKT Fail
OK
DVI Signal
Check DVI
Connector
Check Scaler CKT U5
SCL, SDA, CSZ,
Y1 14.3Mhz,
NO
MCU CKT U6
(MTV416)
OK
OK
Digital DDC
CKT U4
Panel Unit
MCU →U6
DDC ROM→U2, U3,U4
EEPROM →U7
DDC CI →U1
SCALER → U5

DVI & VGA CKT

7. Recommended Spare Parts List

RECOMMENDED SPARE PARTS LIST (VP930-1)

ViewSonic Model Number: VS10725-1W
Rev: 1a
Serial No. Prefix: PQ5

Item	Description		ECR/ECN	ViewSonic P/N	Ref. P/N	Location	Universal number#	Q'ty
1	**Accessories:**	POWER CORD		A-PC-0106-0180	QACC-1126D8D---	AC POWER CORD		1
2	**PC Board Assembly:**	I/F BOARD ASS'Y		B-00004101	DPWBN5718T8V---	I/F BOARD		1
3		INVERTER BOARD		B-00004102	RUNTP5663T8----	INVERTER BOARD		1
4		OSD-SW BOARD ASS'Y		B-00004103	DPWBN5722T8----	KEY BOARD		1
5	**Cabinets:**	BACK COVER		C-00004126	GCOVD2626T8F---	BACK COVER		1
6		CAB-A		C-00004132	GCABA2369T8F---	CAB-A		1
7		CAB-B		C-00004133	GCABB1883T8F---	CAB-B		1
8	**Cables:**	DVI CABLE		CB-00004110	QCODS1641D8D--A	DVI CABLE (BLACK 1.8M)		1
9		FFC CABLE (30 PIN)		CB-00004134	QCODP1229T8----	AUO FFC CABLE (EN03)		1
10		INVERTER WIRE		CB-00004108	QCNWS0906T8038-	INVERTER WIRE		1
11		OSD-SW WIRE		CB-00004109	QCODP1230T8----	KEY WIRE		1
12		VGA CABLE		A-VC-0101-0271	QCODS1584D8D---	SIGNAL CABLE		1
13	**Documentation:**	8ms STICKER LABEL		DC-00004111	TLAB-5703T8----	8ms STICKER LABEL		2
14		CD Wizard (CD-ROM)		DC-00004131	DDSKC0058T8----	CD INF-FILE DEVICE		1
15		CD Wizard (CD-ROM)		DC-00004114	DDSKC0062T8----	DDC/CI CD-DRIVER		1
16		ID LABEL		DC-00003631	TLABM4485T8---A	ID LABEL		1
17		Quick Start Guide		DC-00004112	TINSE3194T8---A	USER'S MANUAL		1
18	**Electronic**	30 PIN CONNECTOR		M-FC-0809-0828	QCNCP2129D8----	CON3		1
19	**Components:**	AUO PANEL(19")		E-00004135	VVLM190EN03V2--	19" AUO PANEL (EN03V2)		1
20		D-SUB CONNECTOR		E-00001059	QCNCD1173T8---A	CON1 CON2		2
21		DVI CONNECTOR		E-00001060	QCNCD1161T8---A	CN1		1
22		EEPROM		E-IC-0401-2286	VSI24LC16B-----	U7A		1
23		FUSE 4A		E-FS-0410-0099	QFS-Z402F-81UAA	F1		1
24		MCU		E-00004116	VSIMTV416GMV-GS	U6		1
25		OSCILLATOR (14.318MHZ)		E-00004117	RCRSL1270TG----	Y1.(14.318MHZ)		1
26		OSCILLATOR (22.1184MHZ)		E-X-0415-0138	RCRSL1257T8----	Y2.(22.1184MHZ)		1
27		SCALER MST		E-00004118	VSITSU66AJ---GA	U5		1
28	**Hardware:**	HINGE ASSEMBLY		HW-00004136	GSTN-2957T8K---	STAND BASE (VP930)		1
29		KENSINGTON BRACKET		M-BK-0805-0057	LANGF2063D8---B	KENSINGTON		1
30		MAIN METAL		HW-00004121	LANGF2227T8----	METAL BRACKET		1
31		METAL FOR PANEL		HW-00004137	LANGF2232T8----	METAL FOR PANEL L/R		2
32	**Miscellaneous:**	BOSS FOR D-SUB AND DVI		M-MS-0808-5840	LBOSM1069D8----	BOSS FOR D-SUB/DVI		4
33	**Packing Material:**	CARTON		P-00003855	SPAKC3715T8---A	CARTON		1
34		PACKING		P-00004138	SPAKA6617T8F---	PACKING FOAM		1
35	**Plastics:**	KNOB		PL-00004130	JKNBP2392T8F---	POWER KNOB		1
36		LENS		PL-00004124	HDECP2012T8F---	LENS		1
37		LOGO PLATE (BIRDS LOGO)		PL-00004125	HBDGE1393T8----	LOGO PLATE (BIRDS MARK)		1

RECOMMENDED SPARE PARTS LIST (VP930b-1)

ViewSonic Model Number: VS10725-1W

Rev:

Serial No. Prefix: PQ8

Item	Description		ECR/ECN	ViewSonic P/N	Ref. P/N	Location	Universal number#	Q'ty
1	**Accessories:**	POWER CORD		A-PC-0106-0180	QACC-1126D8D---	AC POWER CORD		1
2	**PC Board Assembly:**	I/F BOARD ASS'Y		B-00004101	DPWBN5718T8V---	I/F BOARD		1
3		INVERTER BOARD		B-00004102	RUNTP5663T8----	INVERTER BOARD		1
4		OSD-SW BOARD ASS'Y		B-00004103	DPWBN5722T8----	KEY BOARD		1
5	**Cabinets:**	BACK COVER		C-00004104	GCOVD2626T8F--B	BACK COVER		1
6		CAB-A		C-00004139	GCABA2369T8F--B	CAB-A		1
7		CAB-B		C-00004140	GCABB1883T8F--B	CAB-B		1
8	**Cables:**	DVI CABLE		CB-00004110	QCODS1641D8D--A	DVI CABLE (BLACK 1.8M)		1
9		FFC CABLE (30 PIN)		CB-00004134	QCODP1229T8----	AUO FFC CABLE (EN03)		1
10		INVERTER WIRE		CB-00004108	QCNWS0906T8038-	INVERTER WIRE		1
11		OSD-SW WIRE		CB-00004109	QCODP1230T8----	KEY WIRE		1
12		VGA CABLE		A-VC-0101-0271	QCODS1584D8D---	SIGNAL CABLE		1
13	**Documentation:**	8ms STICKER LABEL		DC-00004111	TLAB-5703T8----	8ms STICKER LABEL		2
14		CD Wizard (CD-ROM)		DC-00004131	DDSKC0058T8----	CD INF-FILE DEVICE		1
15		CD Wizard (CD-ROM)		DC-00004114	DDSKC0062T8----	DDC/CI CD-DRIVER		1
16		ID LABEL		DC-00003632	TLABM4487T8---A	ID LABEL		1
17		Quick Start Guide		DC-00004112	TINSE3194T8---A	USER'S MANUAL		1
18	**Electronic**	30 PIN CONNECTOR		M-FC-0809-0828	QCNCP2129D8----	CON3		1
19	**Components:**	AUO PANEL(19")		E-00004135	VVLM190EN03V2--	19" AUO PANEL (EN03V2)		1
20		D-SUB CONNECTOR		E-00001059	QCNCD1173T8---A	CON1 CON2		2
21		DVI CONNECTOR		E-00001060	QCNCD1161T8---A	CN1		1
22		EEPROM		E-IC-0401-2286	VSI24LC16B-----	U7A		1
23		FUSE 4A		E-FS-0410-0099	QFS-Z402F-81UAA	F1		1
24		MCU		E-00004116	VSIMTV416GMV-GS	U6		1
25		OSCILLATOR (14.318MHZ)		E-00004117	RCRSL1270TG----	Y1.(14.318MHZ)		1
26		OSCILLATOR (22.1184MHZ)		E-X-0415-0138	RCRSL1257T8----	Y2.(22.1184MHZ)		1
27		SCALER MST		E-00004118	VSITSU66AJ---GA	U5		1
28	**Hardware:**	HINGE ASSEMBLY		HW-00004141	GSTN-2957T8K--B	STAND BASE (VP930B)		1
29		KENSINGTON BRACKET		M-BK-0805-0057	LANGF2063D8---B	KENSINGTON		1
30		MAIN METAL		HW-00004121	LANGF2227T8----	METAL BRACKET		1
31		METAL FOR PANEL		HW-00004137	LANGF2232T8----	METAL FOR PANEL L/R		2
32	**Miscellaneous:**	BOSS FOR D-SUB AND DVI		M-MS-0808-5840	LBOSM1069D8----	BOSS FOR D-SUB/DVI		4
33	**Packing Material:**	CARTON		P-00003856	SPAKC3715T8---C	CARTON		1
34		PACKING		P-00004138	SPAKA6617T8F---	PACKING FOAM		1
35	**Plastics:**	KNOB		PL-00004123	JKNBP2392T8F--B	POWER KNOB		1
36		LENS		PL-00004124	HDECP2012T8F---	LENS		1
37		LOGO PLATE (BIRDS LOGO)		PL-00004125	HBDGE1393T8----	LOGO PLATE (BIRDS MARK)		1

BOM LIST (VP930-1)

ViewSonic Model Number: VS10725-1W

Rev: 1a

Serial No. Prefix: PQ5

Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number	Q'ty
1	HW-00004136	GSTN-2957T8K---	STAND BASE (VP930)	STAND BASE (VP930)		1
2	#N/A	XBPSB40P10JS0--	SCREW FOR HINGE STAND	SCREW FOR HINGE STAND		4
3	C-00004132	GCABA2369T8F---	CAB-A	CAB-A		1
4	C-00004133	GCABB1883T8F---	CAB-B	CAB-B		1
5	C-00004126	GCOVD2626T8F---	BACK COVER	BACK COVER		1
6	PL-00004130	JKNBP2392T8F---	POWER KNOB	POWER KNOB		1
7	PL-00004124	HDECP2012T8F---	LENS	LENS		1
8	#N/A	LANGF2194T8---A	VESA-FIX	VESA-FIX		4
9	PL-00004125	HBDGE1393T8----	LOGO PLATE (BIRDS MARK)	LOGO PLATE (BIRDS MARK)		1
10	#N/A	XBMSB30P05000--	SCREW FOR CAB-B*4	SCREW FOR CAB-B*4		4
11	M-MS-0808-5840	LBOSM1069D8----	BOSS FOR D-SUB/DVI	BOSS FOR D-SUB/DVI		6
12	M-00003927	PCUSG1671T8----	CAB-B USE	CAB-B USE		1
13	#N/A	PCUSG1674T8----	CAB-B USE	CAB-B USE		1
14	#N/A	PCUS-1443T8----	VESA METAL USE(TCO)	VESA METAL USE(TCO)		1
15	#N/A	PCUSS1588T8----	SPONGE FOR VESA METAL(TCO)	SPONGE FOR VESA METAL(TCO)		1
16	#N/A	TLAB-5523D8----	S/N LABEL	S/N LABEL		1
17	#N/A	TLAB-5532D8----	MODEL LABEL	MODEL LABEL		1
18	DC-00003631	TLABM4485T8----	ID OLABEL	ID OLABEL		1
19	#N/A	TINSE3194T8----	USER'S MANUAL	USER'S MANUAL		1
20	DC-00004131	DDSKC0058T8----	CD INF-FILE DEVICE	CD INF-FILE DEVICE		1
21	A-VC-0101-0271	QCODS1584D8D---	SIGNAL CABLE	SIGNAL CABLE		1
22	CB-00004110	QCODS1641D8D--A	DVI CABLE (BLACK 1.8M)	DVI CABLE (BLACK 1.8M)		1
23	A-PC-0106-0180	QACC-1126D8D---	AC POWER CORD	AC POWER CORD		1
24	#N/A	ZTAPEY030G045--	GREEN TAPE FOR BEZEL(40*2),S/W POWER(20*1)	GREEN TAPE FOR BEZEL(40*2),S/W POWER(20*1)		100
25	#N/A	ZTAPEY010G060--	GREEN TAPE FOR SHEET 20MM*4	GREEN TAPE FOR SHEET 20MM*4		80
26	M-MS-0808-8408	PISL-1281D8----	PROTECT SHEET	PROTECT SHEET		1
27	#N/A	SSAKH1356D8-T-B	MONITOR BAG	MONITOR BAG		1
28	#N/A	SSAKD0010-1-T--	MANUAL BAG	MANUAL BAG		1
29	P-00004138	SPAKA6617T8F---	PACKING FOAM	PACKING FOAM		1
30	P-00003855	SPAKC3715T8----	CARTON	CARTON		1
31	M-LB-0813-0527	TLABZ3903D8----	UPC LABEL	UPC LABEL		1
32	#N/A	ZTAPEQ019T040--	TAPE FOR BAG	TAPE FOR BAG		0.05
33	#N/A	ZTAPEQ050Y062--	TAPE FOR BOX SECURITY	TAPE FOR BOX SECURITY		0.97
34	#N/A	SPAKW1263T8----	PALLET	PALLET		0.02
35	#N/A	SPAKK6309D8----	CORNER PAPER (SIDE)	CORNER PAPER (SIDE)		0.08
36	M-MS-0808-5875	SPAKK1703T8Z---	CORNER PAPER (TOP-H)	CORNER PAPER (TOP-H)		0.04
37	#N/A	SPAKK6338D8----	CORNER PAPER (TOP-V)	CORNER PAPER (TOP-V)		0.04
38	#N/A	SPAKK6382T8----	FLAT PAPER	FLAT PAPER		0.04
39	#N/A	ZTIE-P155Y1800-	TAPE FOR PALLET	TAPE FOR PALLET		1.4
40	#N/A	ZSHETVR02X510--	PVC PROTECTIVE FILM	PVC PROTECTIVE FILM		1.5
41	DC-00004114	DDSKC0062T8----	DDC/CI CD-DRIVER	DDC/CI CD-DRIVER		1
42	M-BK-0805-0057	LANGF2063D8---B	KENSINGTON	KENSINGTON		1
43	#N/A	TLAB-5657T8----	HI POT LABEL	HI POT LABEL		1

BOM LIST CPWB-V930T8AU03

Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number	Q'ty
1	E-00004135	VVLM190EN03V2--	19" AUO PANEL (EN03V2)	19" AUO PANEL (EN03V2)		1
2	B-00004101	DPWBN5718T8V---	I/F BOARD ASS'Y	I/F BOARD ASS'Y		1
3	B-00004103	DPWBN5722T8----	KEY BOARD ASS'Y	KEY BOARD ASS'Y		1
4	HW-00004121	LANGF2227T8----	METAL BRACKET	METAL BRACKET		1
5	HW-00004137	LANGF2232T8----	METAL FOR PANEL L/R	METAL FOR PANEL L/R		2
6	#N/A	RUNTP5654T8----	POWER BOARD	POWER BOARD		1
7	#N/A	RUNTP5656T8----2nd				1
8	B-00004102	RUNTP5663T8----	INVERTER BOARD(EPS)	INVERTER BOARD(EPS)		1
9	#N/A	RUNTP5655T8----2nd				1
10	CB-00004134	QCODP1229T8----	AUO FFC CABLE (EN03)	AUO FFC CABLE (EN03)		1
11	CB-00004109	QCODP1230T8----	KEY WIRE	KEY WIRE		1
12	#N/A	QCNWS0907T8021-	POWER WIRE	POWER WIRE		1
13	CB-00004108	QCNWS0906T8038-	INVERTER WIRE	INVERTER WIRE		1
14	#N/A	PISLV0262T8----	DECORATION MYLAR	DECORATION MYLAR		1
15	#N/A	TLABZ4916T8----	HIGH VOLTAGE LABEL	HIGH VOLTAGE LABEL		1
16	#N/A	XBBSN30P04000--	SCREW FOR MAIN METAL	SCREW FOR MAIN METAL		4
17	#N/A	XBMSB30P05000--	SCREW FOR PCBA AND PANEL METAL	SCREW FOR PCBA AND PANEL METAL		11
18	HW-00001050	XHISE40P08TV0--	SCREW FOR GND	SCREW FOR GND		1
19	#N/A	ZTAPEL050S030--	ALU-TAPE FOR METAL/CABLE*50MM,ANDPANEL*50MM,AND INVERTER WIRE*30MM*2	ALU-TAPE FOR METAL/CABLE*50MM,ANDPANEL*50MM,AND INVERTER WIRE*30MM*2		160
20	#N/A	ZTAPEP019D020D-	CG TAPE FOR INVERTER WIRE	CG TAPE FOR INVERTER WIRE		20
21	#N/A	ZTAPEN018D030U-	CG TAPE FOR PANEL CONNECTER 0.05*2	CG TAPE FOR PANEL CONNECTER 0.05*2		0.1
22	#N/A	PCUSS1395D8----	10*10*10 SPONGE FOR MCU AND SCALER	10*10*10 SPONGE FOR MCU AND SCALER		2
23	#N/A	ZTAPEN030D030U-	CG TAPE FOR KENSINGTON AREA	CG TAPE FOR KENSINGTON AREA		30
24	#N/A	PCUSG1687T8----	ROBBER FOR METAL TO PANEL	ROBBER FOR METAL TO PANEL		3

BOM LIST (VP930-1 for I/F Board - DPWBN5718T8V---)

ViewSonic Model Number: VS10725-1W

Rev: 1a

Serial No. Prefix: PQ5

Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
1	#N/A	QPWB-5718T8----	I/F BOARD	I/F BOARD		1
2	#N/A	VSDAN202UT106-A	DIODE	D1 D2		2
3	E-D-0403-0531	VSD1N4148-----A	DIODE	D3 D4		2
4	#N/A	VSDDL4001-----A	DIODE	D5		1
5	#N/A	VSICEM9435----A	IC	Q8		1
6	#N/A	VSISDM9435A---A 2nd	IC	Q8 (2nd)		1
7	#N/A	VSI74HC4052DT-A	IC	U1		1
8	#N/A	VSIAT24C02N---A	EEPROM IC (24C02N)	U2 U3 U4		3
9	E-00004118	VSITSU66AJ---GA	Mstar Scaler IC (MST)	U5		1
10	#N/A	VSIAIC1084-33CE	IC	U8		1
11	#N/A	VSIAP1117D33A-A 2nd	IC	U8 (2nd)		1
12	#N/A	VSIAZ1117D-18GA	IC	U9		1
13	#N/A	VSIAP1117D18A-A 2nd	IC	U9 (2nd)		1
14	#N/A	VST2N3906-----A	TRANSISTOR (NPN)	Q1 Q2 Q3 Q4 Q5		5
15	#N/A	VST2N3904-----A	TRANSISTOR (NPN)	Q10 Q11 Q6 Q7 Q9		5
16	#N/A	VSTMMBT3904T-MA 2nd	TRANSISTOR (NPN)	Q10 Q11 Q6 Q7 Q9 (2nd)		5
17	#N/A	VSZML0603E11--A		E1 E10 E11 E12 E13 E14 E15 E16 E17		28
18	#N/A			E18 E19 E2 E20 E21 E22 E23 E24 E25		
19	#N/A			E26 E27 E28 E3 E4 E5 E6 E7 E8 E9		
20	#N/A	VRMDNVG--000J-A	SMT 0O ±5% 1/16W	FB15 FB16 FB17 FB18 FB19 FB5 FB6		26
21	#N/A			R105 R14 R17 R42 R43 R44 R45 R46		
22	#N/A			R48 R49 R57 R58 R59 R63 R66 R75		
23	#N/A	VRMDNVG--101J-A	SMT 100O ±5% 1/16W	R15 R27 R28 R32 R33 R35 R40 R41		13
24	#N/A			R85 R92 R93 R94		
25	#N/A	VRMDNVG--102J-A	SMT 1KO ±5% 1/16W	R103 R108 R109 R13 R16 R34 R36		7
26	#N/A	VRMDNVG--103J-A	SMT 10KO ±5% 1/16W	R104 R110 R111 R112 R19 R38 R39		12
27	#N/A			R68 R72 R82 R88		
28	#N/A	VRMDNVG--104J-A	SMT 100KO ±5% 1/16W	R78		1
29	#N/A	VRMDNVG--105J-A	SMT 1MO ±5% 1/16W	R69 R81		2
30	#N/A	VRMDNVG--151J-A	SMT 150O ±5% 1/16W	FB4 FB8		2
31	#N/A	VRMDNVG--222J-A	SMT 2.2KO ±5% 1/16W	R18 R37		2
32	#N/A	VRMDNVG--330J-A	SMT 33O ±5% 1/16W	R1 R2 R20 R21 R22 R3		6
33	#N/A	VRMDNVG--391J-A	SMT 390O ±5% 1/16W	R23 R4 R53 R67 R74		5
34	E-00002880	VRMDNVG--472J-A	SMT 4.7KO ±5% 1/16W	R100 R101 R102 R107 R11 R113 R114		19
35	#N/A			R70 R73 R76 R79 R80 R84 R90 R96		
36	#N/A			R98 R99		
37	#N/A	VRMDNVG--473J-A	SMT 47KO ±5% 1/16W	R71		1
38	#N/A	VRMDNVG--750J-A	SMT 75O ±5% 1/16W	R10 R24 R25 R26 R29 R30 R31 R5 R6		12
39	#N/A			R8 R9		
40	E-D-0403-1723	VRMBNV4--0R0J-A	SMT 0O ±5% 1/4W	FB21 FB22		2
41	#N/A	VCIRHN1EH473K-A	C 470PF ±10% 50V	C1 C10 C14 C15 C17 C2 C22 C23 C24		12
42	#N/A			C8 C9		
43	#N/A	VCIRHN1HG102K-A	C 1000PF ±10% 50V	C18 C4		2
44	#N/A	VCICHN1HH220J-A	C 22PF ±5% 50V	C54 C59 C62 C63		4
45	#N/A	VCICHN1HH221J-A		C13 C27		2
46	E-C-0404-4947	VCICHN1HH330J-A	C 33PF ±5% 50V	C12 C26		2
47	#N/A	VCLFHN1HG104Z-A	C 0.1UF +80%-20% 50V	C11 C30 C31 C32 C33 C35 C36 C37		40
48	#N/A			C39 C40 C41 C43 C45 C46 C47 C48		
49	#N/A			C53 C55 C57 C58 C61 C65 C66 C67		
50	#N/A			C69 C70 C71 C76 C77 C78 C79 C80		
51	#N/A			C85 C87 C89 C91		
52	#N/A	VCLFHN1CG105Z-A	C 1UF +80%-20% 16V	C16 C25 C28 C64 C72 C73		6
53	E-L-0407-1559	RFIL-5232T8300A		FB10 FB11 FB12 FB13 FB14 FB9		6
54	#N/A	RNWRB1618T8472A	RP 4.7K 8PIN	RP1 RP2 RP7 RP8		4
55	M-FC-0809-0828	QCNCP2129D8----	FFC 30 PIN CONNECTOR	CON3		1
56	#N/A	QCNCS1973T8---A	CONNECTOR 8 PIN	CON4		1
57	#N/A	QCNCS1973T8---- 2nd	CONNECTOR 8 PIN	CON4 (2nd)		1
58	E-FS-0410-0099	QFS-Z402F-81UAA	FUSE 4A 125V	F1.(4A)		1
59	#N/A	VCICHN1HH101J-A	C 100PF ±5% 50V	C93 C94 C95 C96 C97 C98		6
60	#N/A	VSZGLZ3.9B----A	ZENER DIODE 3.9V	D6		1
61	#N/A	RFIL-5235T8400A		FB1 FB2 FB3		3
62	#N/A	VCEATU1CH476M5-	C 47UF ±20% 16V	C29 C34 C42 C44 C51 C56 C60 C74		13
63	#N/A			C82 C84 C88 C90		
64	#N/A	VCEATU1CH477M-P	C 470UF ±20% 16V	C81 C86		2
65	#N/A	VCEATU1CH477M7- 2nd	C 470UF ±20% 16V	C81 C86 (2nd)		2
66	E-00004116	VSIMTV416GMV-GS	MCU IC (MTV416GMV)	U6		1
67	E-IC-0401-2286	VSI24LC16B-----	EEPROM IC (24LC16)	U7A		1
68	E-00004117	RCRSL1270TG----	OSCILLATOR (14.318MHZ)	Y1.(14.318MHZ)		1
69	#N/A	RCRSL1255T8---- 2nd	OSCILLATOR (14.318MHZ)	Y1.(14.318MHZ) (2nd)		1
70	#N/A	RCRSL1258T8---- 2nd	OSCILLATOR (14.318MHZ)	Y1.(14.318MHZ) (2nd)		1
71	E-X-0415-0138	RCRSL1257T8----	OSCILLATOR (22.1184MHZ)	Y2.(22.1184MHZ)		1
72	#N/A	RCRSL1256T8---- 2nd	OSCILLATOR (22.1184MHZ)	Y2.(22.1184MHZ) (2nd)		1
73	E-00001060	QCNCD1161T8---A	CONNECTOR DVI	CN1		1
74	#N/A	QCNCD1161T8---- 2nd	CONNECTOR DVI	CN1 (2nd)		1

Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
75	E-00001059	QCNCD1173T8---A	VGA CONNECTOR	CON1 CON2		2
76	#N/A	QCNCD1173T8---- 2nd	VGA CONNECTOR	CON1 CON2 (2nd)		2
77	#N/A	VCNCP0906REJST-	CONNECTOR 6 PIN	CON6		1
78	#N/A	VCNCP0907REJST-	CONNECTOR 7 PIN	CON7		1
79	#N/A	QSW-A1236T8----	SWITCH	SW1.(ROLLING BALL TILT)		1
80	#N/A	QSW-A1234T8---- 2nd	SWITCH	SW1.(ROLLING BALL TILT) (2nd)		1

BOM LIST (VP930-1 for Key Board - DPWBN5722T8----)

ViewSonic Model Number: VS10725-1W

Rev: 1a

Serial No. Prefix: PQ5

Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
1	#N/A	QPWB-5722T8--1-	KEY BOARD	KEY BOARD		1
2	#N/A	VSPLT8B02-32--A	LED	LED1.(SMD,4PIN)		1
3	#N/A	VSP-260YL3YG3-A 2nd	LED	LED1.(SMD,4PIN) (2nd)		1
4	#N/A	QSW-A1215D8----	SWITCH	SW1 SW2 SW3 SW4 SW5		5
5	#N/A	QCNCS1973T8---A	CONNECTOR 8 PIN	J1		1
6	#N/A	QCNCS1973T8---- 2nd	CONNECTOR 8 PIN	J1 (2nd)		1
7	#N/A	VCICHN1HG472K-A	C .47uF ±10% 50V	C191 C192 C193 C194 C195		5
8	B-SB-0221-0505	TLAB-3547T8----	PWB LABEL	LABEL		1

BOM LIST (VP930b-1)

ViewSonic Model Number: VS10725-1W

Rev: 1a

Serial No. Prefix: PQ8

Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
1	#N/A	GSTN-2957T8K--B	STAND BASE (VP930B)	STAND BASE (VP930B)		1
2	#N/A	XBPSB40P10JS0--	SCREW FOR HINGE STAND	SCREW FOR HINGE STAND		4
3	#N/A	GCABA2369T8F--B	CAB-A	CAB-A		1
4	#N/A	GCABB1883T8F--B	CAB-B	CAB-B		1
5	C-00004104	GCOVD2626T8F--B	BACK COVER	BACK COVER		1
6	PL-00004123	JKNBP2392T8F--B	POWER KNOB	POWER KNOB		1
7	PL-00004124	HDECP2012T8F---	LENS	LENS		1
8	#N/A	LANGF2194T8---A	VESA-FIX	VESA-FIX		4
9	PL-00004125	HBDGE1393T8----	LOGO PLATE (BIRDS MARK)	LOGO PLATE (BIRDS MARK)		1
10	#N/A	XBMSB30P05000--	SCREW FOR CAB-B*4	SCREW FOR CAB-B*4		4
11	M-MS-0808-5840	LBOSM1069D8----	BOSS FOR D-SUB/DVI	BOSS FOR D-SUB/DVI		6
12	M-00003927	PCUSG1671T8----	CAB-B USE	CAB-B USE		1
13	#N/A	PCUSG1674T8----	CAB-B USE	CAB-B USE		1
14	#N/A	PCUS-1443T8----	VESA METAL USE(TCO)	VESA METAL USE(TCO)		1
15	#N/A	PCUSS1588T8----	SPONGE FOR VESA METAL(TCO)	SPONGE FOR VESA METAL(TCO)		1
16	#N/A	TLAB-5523D8----	S/N LABEL	S/N LABEL		1
17	#N/A	TLAB-5532D8----	MODEL LABEL	MODEL LABEL		1
18	DC-00003632	TLABM4487T8----	ID OLABEL	ID OLABEL		1
19	#N/A	TINSE3194T8----	USER'S MANUAL	USER'S MANUAL		1
20	DC-00004131	DDSKC0058T8----	CD INF-FILE DEVICE	CD INF-FILE DEVICE		1
21	A-VC-0101-0271	QCODS1584D8D---	SIGNAL CABLE	SIGNAL CABLE		1
22	CB-00004110	QCODS1641D8D--A	DVI CABLE (BLACK 1.8M)	DVI CABLE (BLACK 1.8M)		1
23	A-PC-0106-0180	QACC-1126D8D---	AC POWER CORD	AC POWER CORD		1
24	#N/A	ZTAPEY030G045--	GREEN TAPE FOR BEZEL(40*2),S/W POWER(20*1)	GREEN TAPE FOR BEZEL(40*2),S/W POWER(20*1)		100
25	#N/A	ZTAPEY010G060--	GREEN TAPE FOR SHEET 20MM*4	GREEN TAPE FOR SHEET 20MM*4		80
26	M-MS-0808-8408	PISL-1281D8----	PROTECT SHEET	PROTECT SHEET		1
27	#N/A	SSAKH1356D8-T-B	MONITOR BAG	MONITOR BAG		1
28	#N/A	SSAKD0010-1-T--	MANUAL BAG	MANUAL BAG		1
29	P-00004138	SPAKA6617T8F---	PACKING FOAM	PACKING FOAM		1
30	P-00003856	SPAKC3715T8---B	CARTON	CARTON		1
31	M-LB-0813-0527	TLABZ3903D8----	UPC LABEL	UPC LABEL		1
32	#N/A	ZTAPEQ019T040--	TAPE FOR BAG	TAPE FOR BAG		0.05
33	#N/A	ZTAPEQ050Y062--	TAPE FOR BOX SECURITY	TAPE FOR BOX SECURITY		0.97
34	#N/A	SPAKW1263T8----	PALLET	PALLET		0.02
35	#N/A	SPAKK6309D8----	CORNER PAPER (SIDE)	CORNER PAPER (SIDE)		0.08
36	M-MS-0808-5875	SPAKK1703T8Z---	CORNER PAPER (TOP-H)	CORNER PAPER (TOP-H)		0.04
37	#N/A	SPAKK6338D8----	CORNER PAPER (TOP-V)	CORNER PAPER (TOP-V)		0.04
38	#N/A	SPAKK6382T8----	FLAT PAPER	FLAT PAPER		0.04
39	#N/A	ZTIE-P155Y1800-	TAPE FOR PALLET	TAPE FOR PALLET		1.4
40	#N/A	ZSHETVR02X510--	PVC PROTECTIVE FILM	PVC PROTECTIVE FILM		1.5
41	DC-00004114	DDSKC0062T8----	DDC/CI CD-DRIVER	DDC/CI CD-DRIVER		1
42	M-BK-0805-0057	LANGF2063D8---B	KENSINGTON	KENSINGTON		1
43	#N/A	TLAB-5657T8----	HI POT LABEL	HI POT LABEL		1

BOM LIST CPWB-V930T8AU03

Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
1	E-00004135	VVLM190EN03V2--	19" AUO PANEL (EN03V2)	19" AUO PANEL (EN03V2)		1
2	B-00004101	DPWBN5718T8V---	I/F BOARD ASS'Y	I/F BOARD ASS'Y		1
3	B-00004103	DPWBN5722T8----	KEY BOARD ASS'Y	KEY BOARD ASS'Y		1
4	HW-00004121	LANGF2227T8----	METAL BRACKET	METAL BRACKET		1
5	HW-00004137	LANGF2232T8----	METAL FOR PANEL L/R	METAL FOR PANEL L/R		2
6	#N/A	RUNTP5654T8----	POWER BOARD	POWER BOARD		1
7	#N/A	RUNTP5656T8---- 2nd				1
8	B-00004102	RUNTP5663T8----	INVERTER BOARD(EPS)	INVERTER BOARD(EPS)		1
9	#N/A	RUNTP5655T8---- 2nd				1
10	CB-00004134	QCODP1229T8----	AUO FFC CABLE (EN03)	AUO FFC CABLE (EN03)		1
11	CB-00004109	QCODP1230T8----	KEY WIRE	KEY WIRE		1
12	#N/A	QCNWS0907T8021-	POWER WIRE	POWER WIRE		1
13	CB-00004108	QCNWS0906T8038-	INVERTER WIRE	INVERTER WIRE		1
14	#N/A	PISLV0262T8----	DECORATION MYLAR	DECORATION MYLAR		1
15	#N/A	TLABZ4916T8----	HIGH VOLTAGE LABEL	HIGH VOLTAGE LABEL		1
16	#N/A	XBBSN30P04000--	SCREW FOR MAIN METAL	SCREW FOR MAIN METAL		4
17	#N/A	XBMSB30P05000--	SCREW FOR PCBA AND PANEL METAL	SCREW FOR PCBA AND PANEL METAL		11
18	HW-00001050	XHISE40P08TV0--	SCREW FOR GND	SCREW FOR GND		1
19	#N/A	ZTAPEL050S030--	ALU-TAPE FOR METAL/CABLE*50MM,ANDPANEL*50MM,AND INVERTER WIRE*30MM*2	ALU-TAPE FOR METAL/CABLE*50MM,ANDPANEL*50MM,AND INVERTER WIRE*30MM*2		160
20	#N/A	ZTAPEP019D020D-	CG TAPE FOR INVERTER WIRE	CG TAPE FOR INVERTER WIRE		20
21	#N/A	ZTAPEN018D030U-	0.05*2	CG TAPE FOR PANEL CONNECTER 0.05*2		0.1
22	#N/A	PCUSS1395D8----	10*10*10 SPONGE FOR MCU AND SCALER	10*10*10 SPONGE FOR MCU AND SCALER		2
23	#N/A	ZTAPEN030D030U-	CG TAPE FOR KENSINGTON AREA	CG TAPE FOR KENSINGTON AREA		30
24	#N/A	PCUSG1687T8----	ROBBER FOR METAL TO PANEL	ROBBER FOR METAL TO PANEL		3

BOM LIST (VP930-1 for I/F Board - DPWBN5718T8V---)

ViewSonic Model Number: VS10725-1W

Rev: 1a

Serial No. Prefix: PQ5

Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
1	#N/A	QPWB-5718T8----	I/F BOARD	I/F BOARD		1
2	#N/A	VSDAN202UT106-A	DIODE	D1 D2		2
3	E-D-0403-0531	VSD1N4148-----A	DIODE	D3 D4		2
4	#N/A	VSDDL4001-----A	DIODE	D5		1
5	#N/A	VSICEM9435----A	IC	Q8		1
6	#N/A	VSISDM9435A---A 2nd	IC	Q8 (2nd)		1
7	#N/A	VSI74HC4052DT-A	IC	U1		1
8	#N/A	VSIAT24C02N---A	EEPROM IC (24C02N)	U2 U3 U4		3
9	E-00004118	VSITSU66AJ---GA	Mstar Scaler IC (MST)	U5		1
10	#N/A	VSIAIC1084-33CE	IC	U8		1
11	#N/A	VSIAP1117D33A-A 2nd	IC	U8 (2nd)		1
12	#N/A	VSIAZ1117D-18GA	IC	U9		1
13	#N/A	VSIAP1117D18A-A 2nd	IC	U9 (2nd)		1
14	#N/A	VST2N3906-----A	TRANSISTOR (NPN)	Q1 Q2 Q3 Q4 Q5		5
15	#N/A	VST2N3904-----A	TRANSISTOR (NPN)	Q10 Q11 Q6 Q7 Q9		5
16	#N/A	VSTMMBT3904T-MA 2nd	TRANSISTOR (NPN)	Q10 Q11 Q6 Q7 Q9 (2nd)		5
17	#N/A	VSZML0603E11--A		E1 E10 E11 E12 E13 E14 E15 E16 E17		28
18	#N/A			E18 E19 E2 E20 E21 E22 E23 E24 E25		
19	#N/A			E26 E27 E28 E3 E4 E5 E6 E7 E8 E9		
20	#N/A	VRMDNVG--000J-A	SMT 0O ±5% 1/16W	FB15 FB16 FB17 FB18 FB19 FB5 FB6		26
21	#N/A			R105 R14 R17 R42 R43 R44 R45 R46 R47		
22	#N/A			R48 R49 R57 R58 R59 R63 R66 R75 R83		
23	#N/A	VRMDNVG--101J-A	SMT 100O ±5% 1/16W	R15 R27 R28 R32 R33 R35 R40 R41 R60		13
24	#N/A			R85 R92 R93 R94		
25	#N/A	VRMDNVG--102J-A	SMT 1KO ±5% 1/16W	R103 R108 R109 R13 R16 R34 R36		7
26	#N/A	VRMDNVG--103J-A	SMT 10KO ±5% 1/16W	R104 R110 R111 R112 R19 R38 R39 R61		12
27	#N/A			R68 R72 R82 R88		
28	#N/A	VRMDNVG--104J-A	SMT 100KO ±5% 1/16W	R78		1
29	#N/A	VRMDNVG--105J-A	SMT 1MO ±5% 1/16W	R69 R81		2
30	#N/A	VRMDNVG--151J-A	SMT 150O ±5% 1/16W	FB4 FB8		2
31	#N/A	VRMDNVG--222J-A	SMT 2.2KO ±5% 1/16W	R18 R37		2
32	#N/A	VRMDNVG--330J-A	SMT 33O ±5% 1/16W	R1 R2 R20 R21 R22 R3		6
33	#N/A	VRMDNVG--391J-A	SMT 390O ±5% 1/16W	R23 R4 R53 R67 R74		5
34	E-00002880	VRMDNVG--472J-A	SMT 4.7KO ±5% 1/16W	R100 R101 R102 R107 R11 R113 R114		19
35	#N/A			R70 R73 R76 R79 R80 R84 R90 R96 R97		
36	#N/A			R98 R99		
37	#N/A	VRMDNVG--473J-A	SMT 47KO ±5% 1/16W	R71		1
38	#N/A	VRMDNVG--750J-A	SMT 75O ±5% 1/16W	R10 R24 R25 R26 R29 R30 R31 R5 R6 R7		12
39	#N/A			R8 R9		
40	E-D-0403-1723	VRMBNV4--0R0J-A	SMT 0O ±5% 1/4W	FB21 FB22		2
41	#N/A	VCIRHN1EH473K-A	C 470PF ±10% 50V	C1 C10 C14 C15 C17 C2 C22 C23 C24 C3		12
42	#N/A			C8 C9		
43	#N/A	VCIRHN1HG102K-A	C 1000PF ±10% 50V	C18 C4		2
44	#N/A	VCICHN1HH220J-A	C 22PF ±5% 50V	C54 C59 C62 C63		4
45	#N/A	VCICHN1HH221J-A		C13 C27		2
46	E-C-0404-4947	VCICHN1HH330J-A	C 33PF ±5% 50V	C12 C26		2
47	#N/A	VCLFHN1HG104Z-A	C 0.1UF +80%-20% 50V	C11 C30 C31 C32 C33 C35 C36 C37 C38		40
48	#N/A			C39 C40 C41 C43 C45 C46 C47 C48 C52		
49	#N/A			C53 C55 C57 C58 C61 C65 C66 C67 C68		
50	#N/A			C69 C70 C71 C76 C77 C78 C79 C80 C83		
51	#N/A			C85 C87 C89 C91		
52	#N/A	VCLFHN1CG105Z-A	C 1UF +80%-20% 16V	C16 C25 C28 C64 C72 C73		6
53	E-L-0407-1559	RFIL-5232T8300A		FB10 FB11 FB12 FB13 FB14 FB9		6
54	#N/A	RNWRB1618T8472A	RP 4.7K 8PIN	RP1 RP2 RP7 RP8		4
55	M-FC-0809-0828	QCNCP2129D8----	FFC 30 PIN CONNECTOR	CON3		1
56	#N/A	QCNCS1973T8---A	CONNECTOR 8 PIN	CON4		1
57	#N/A	QCNCS1973T8---- 2nd	CONNECTOR 8 PIN	CON4 (2nd)		1
58	E-FS-0410-0099	QFS-Z402F-81UAA	FUSE 4A 125V	F1.(4A)		1
59	#N/A	VCICHN1HH101J-A	C 100PF ±5% 50V	C93 C94 C95 C96 C97 C98		6
60	#N/A	VSZGLZ3.9B----A	ZENER DIODE 3.9V	D6		1
61	#N/A	RFIL-5235T8400A		FB1 FB2 FB3		3
62	#N/A	VCEATU1CH476M5-	C 47UF ±20% 16V	C29 C34 C42 C44 C51 C56 C60 C74 C75		13
63	#N/A			C82 C84 C88 C90		
64	#N/A	VCEATU1CH477M-P	C 470UF ±20% 16V	C81 C86		2
65	#N/A	VCEATU1CH477M7- 2nd	C 470UF ±20% 16V	C81 C86 (2nd)		2
66	E-00004116	VSIMTV416GMV-GS	MCU IC (MTV416GMV)	U6		1
67	E-IC-0401-2286	VSI24LC16B-----	EEPROM IC (24LC16)	U7A		1
68	E-00004117	RCRSL1270TG----	OSCILLATOR (14.318MHZ)	Y1.(14.318MHZ)		1
69	#N/A	RCRSL1255T8---- 2nd	OSCILLATOR (14.318MHZ)	Y1.(14.318MHZ) (2nd)		1
70	#N/A	RCRSL1258T8---- 2nd	OSCILLATOR (14.318MHZ)	Y1.(14.318MHZ) (2nd)		1
71	E-X-0415-0138	RCRSL1257T8----	OSCILLATOR (22.1184MHZ)	Y2.(22.1184MHZ)		1
72	#N/A	RCRSL1256T8---- 2nd	OSCILLATOR (22.1184MHZ)	Y2.(22.1184MHZ) (2nd)		1
73	E-00001060	QCNCD1161T8---A	CONNECTOR DVI	CN1		1
74	#N/A	QCNCD1161T8---- 2nd	CONNECTOR DVI	CN1 (2nd)		1

Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
75	E-00001059	QCNCD1173T8---A	VGA CONNECTOR	CON1 CON2		2
76	#N/A	QCNCD1173T8---- 2nd	VGA CONNECTOR	CON1 CON2 (2nd)		2
77	#N/A	VCNCP0906REJST-	CONNECTOR 6 PIN	CON6		1
78	#N/A	VCNCP0907REJST-	CONNECTOR 7 PIN	CON7		1
79	#N/A	QSW-A1236T8----	SWITCH	SW1.(ROLLING BALL TILT)		1
80	#N/A	QSW-A1234T8---- 2nd	SWITCH	SW1.(ROLLING BALL TILT) (2nd)		1

BOM LIST (VP930-1 for Key Board - DPWBN5722T8----)

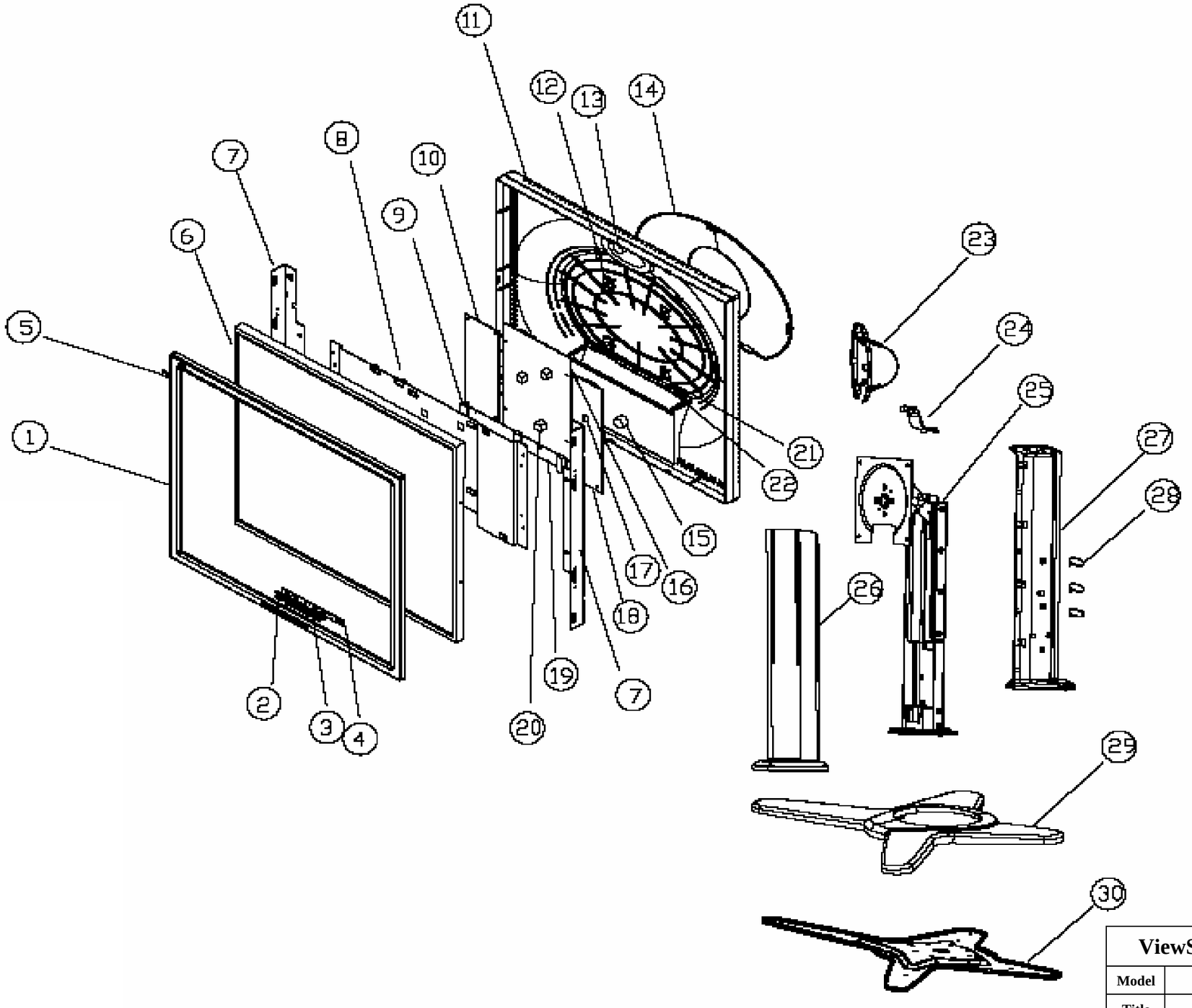
ViewSonic Model Number: VS10725-1W

Rev: 1a

Serial No. Prefix: PQ5

Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
1	#N/A	QPWB-5722T8--1-	KEY BOARD	KEY BOARD		1
2	#N/A	VSPLT8B02-32--A	LED	LED1.(SMD,4PIN)		1
3	#N/A	VSP-260YL3YG3-A 2nd	LED	LED1.(SMD,4PIN) (2nd)		1
4	#N/A	QSW-A1215D8----	SWITCH	SW1 SW2 SW3 SW4 SW5		5
5	#N/A	QCNCS1973T8---A	CONNECTOR 8 PIN	J1		1
6	#N/A	QCNCS1973T8---- 2nd	CONNECTOR 8 PIN	J1 (2nd)		1
7	#N/A	VCICHN1HG472K-A	C .47uF ±10% 50V	C191 C192 C193 C194 C195		5
8	B-SB-0221-0505	TLAB-3547T8----	PWB LABEL	LABEL		1

8.Exploded Diagram And Spare Parts List



ViewSonic Corporation		
Model		
Title		
Date		Rev:

EXPLODED PARTS LIST (VP930-1)

ViewSonic Model Number: VS10725-1V

Rev: 1a

Serial No. Prefix: PQ5

Item	ViewSonic P/N	Ref. P/N	Description	Q'ty
1	C-00004132	GCABA2369T8F---	CAB-A	1
2	PL-00004130	JKNBP2392T8F---	KNOB	1
3	PL-00004124	HDECP2012T8F---	LENS	1
4	B-00004103	DPWBN5722T8----	KEY BOARD	1
5	PL-00004125	HBDGE1393T8----	LOGO PLATE	1
6	E-00000927	VVLM190EN02V2--	19” AUO PANEL	1
7	HW-00004137	LANGF2232T8----	METAL FOR PANEL	2
8	HW-00004121	LANGF2227T8----	METAL BRACKET	1
9	#N/A	PCUSG1687T8----	RUBBER	1
10	#N/A	RUNTP5654T8----	POWER BOARD	1
11	C-00004133	GCABB1883T8F---	CAB-B	1
12	#N/A	LANGF2194T8---A	VESA-FIX	4
13	M-00003927	PCUSG1671T8----	RUBBER	1
14	C-00004126	GCOVD2626T8F---	BACK COVER	1
15	#N/A	PCUSG1674T8----	RUBBER	1
16	B-00004101	DPWBN5718T8V---	I/F BOARD	1
17	#N/A	PCUSG1651T8----	BUBBER	1
18	B-00004102	RUNTP5663T8----	INVERTER BOARD	1
19	#N/A	PISLV0262T8----	DECORATION MYLAR	1
20	#N/A	PCUSG1395D8----	SPONGE	3
21	#N/A	PCUS-1443T8---A	VESA METAL USE	1
22	#N/A	PCUSS1588T8----	SPONGE	1
23	#N/A	GCOVD2632T8F---	HINGE COVER	1
24	#N/A	GCOVD2633T8F---	HINGE COVER	1
25	#N/A	MHNGM0067T8----	HINGE BODAY	1
26	#N/A	GCOVD2630T8F---	NECK FRONT	1
27	#N/A	GCOVD2631T8F---	NECK BACK	1
28	#N/A	GCOVD2634T8F---	CABLE FIED	3
29	#N/A	GSTN-2950T8F---	19” BASE	1
30	#N/A	LANGF2229T8----	19” BASE-METAL	1

EXPLODED PARTS LIST (VP930b-1)

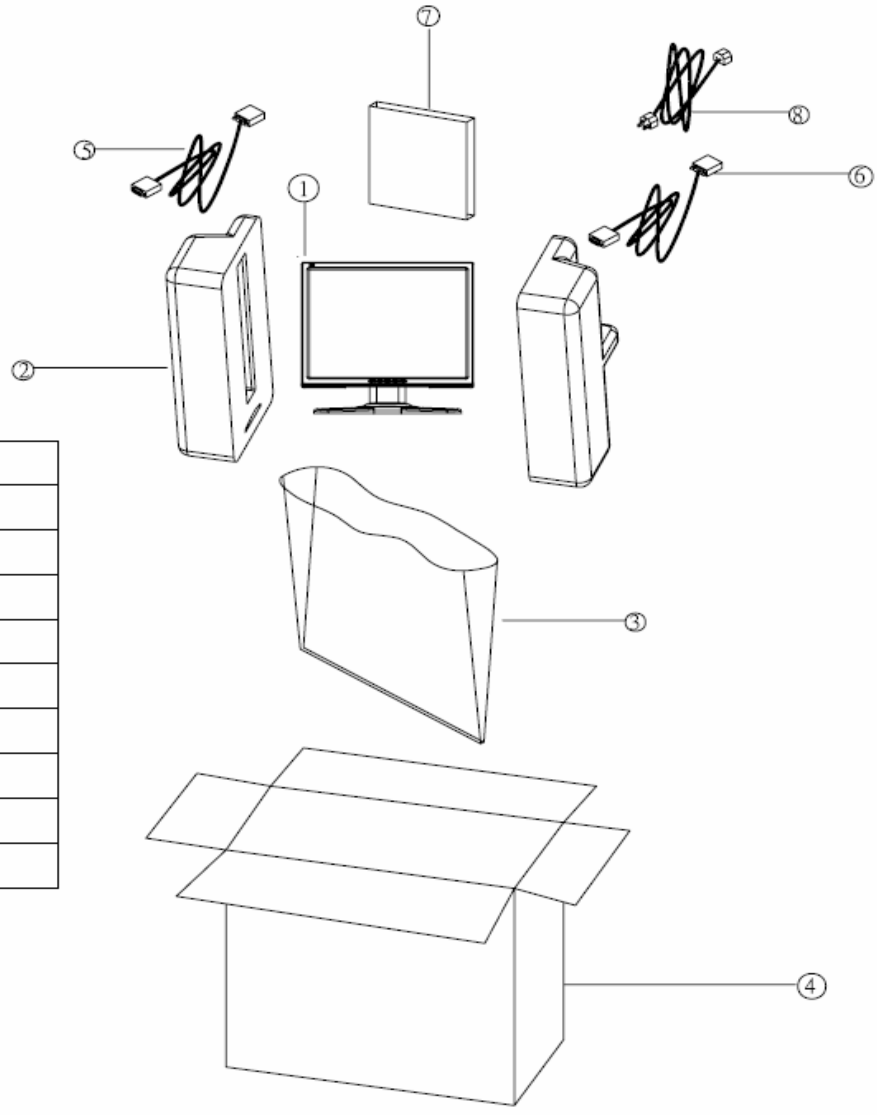
ViewSonic Model Number: VS10725-1V

Rev: 1a

Serial No. Prefix: PQ8

Item	ViewSonic P/N	Ref. P/N	Description	Q'ty
1	C-00004139	GCABA2369T8F--B	CAB-A	1
2	PL-00004123	JKNBP2392T8F--B	KNOB	1
3	PL-00004124	HDECP2012T8F---	LENS	1
4	B-00004103	DPWBN5722T8----	KEY BOARD	1
5	PL-00004125	HBDGE1393T8----	LOGO PLATE	1
6	E-00000927	VVLM190EN02V2--	19” AUO PANEL	1
7	HW-00004137	LANGF2232T8----	METAL FOR PANEL	2
8	HW-00004121	LANGF2227T8----	METAL BRACKET	1
9	#N/A	PCUSG1687T8----	RUBBER	1
10	#N/A	RUNTP5654T8----	POWER BOARD	1
11	C-00004140	GCABB1883T8F--B	CAB-B	1
12	#N/A	LANGF2194T8---A	VESA-FIX	4
13	M-00003927	PCUSG1671T8----	RUBBER	1
14	C-00004104	GCOVD2626T8F--B	BACK COVER	1
15	#N/A	PCUSG1674T8----	RUBBER	1
16	B-00004101	DPWBN5718T8V---	I/F BOARD	1
17	#N/A	PCUSG1651T8----	BUBBER	1
18	B-00004102	RUNTP5663T8----	INVERTER BOARD	1
19	#N/A	PISLV0262T8----	DECORATION MYLAR	1
20	#N/A	PCUSG1395D8----	SPONGE	3
21	#N/A	PCUS-1443T8---A	VESA METAL USE	1
22	#N/A	PCUSS1588T8----	SPONGE	1
23	#N/A	GCOVD2632T8F--B	HINGE COVER	1
24	#N/A	GCOVD2633T8F--B	HINGE COVER	1
25	#N/A	MHNGM0067T8----	HINGE BODAY	1
26	#N/A	GCOVD2630T8F--B	NECK FRONT	1
27	#N/A	GCOVD2631T8F--B	NECK BACK	1
28	#N/A	GCOVD2634T8F---	CABLE FIED	3
29	#N/A	GSTN-2950T8F--B	19” BASE	1
30	#N/A	LANGF2229T8----	19” BASE-METAL	1

1	LCD 19"
2	PACKING
3	BAG
4	CARTON
5	D-SUB CABLE
6	DVI CABLE
7	MENU
8	POWER CORD
9	
10	



Packing For Shipping

1. Packing Procedure

1.1 Paste protecting film to protect the monitor. (Figure 1)

1.2 Put the montor in the PE bag and seal the bag with tape. (Figure 2)

Figure 1

Figure 2

1.3 Put the cushions on the monitor. (Figure 3)

1.4 Place the monitor into the carton and then put all the accessories into the carton. At last, The carton and seal it with tape. (Figure 4)

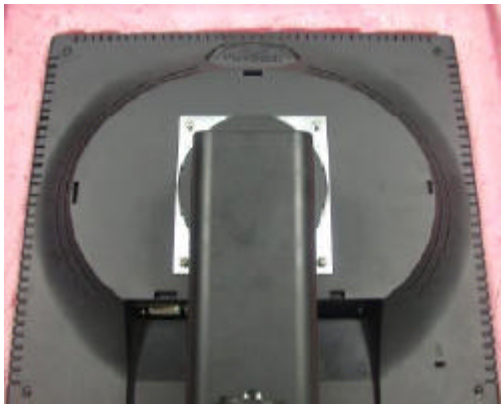
Figure 3

Figure 4

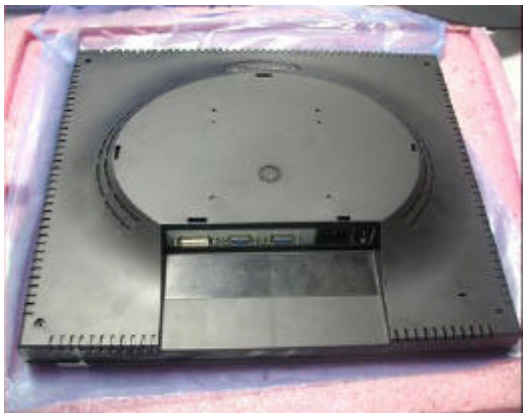
Disassembly

Lie down the monitor on flat table

Remove Back cover and Stand by 4 screw



Remove CAB-B: Take out 4 screw



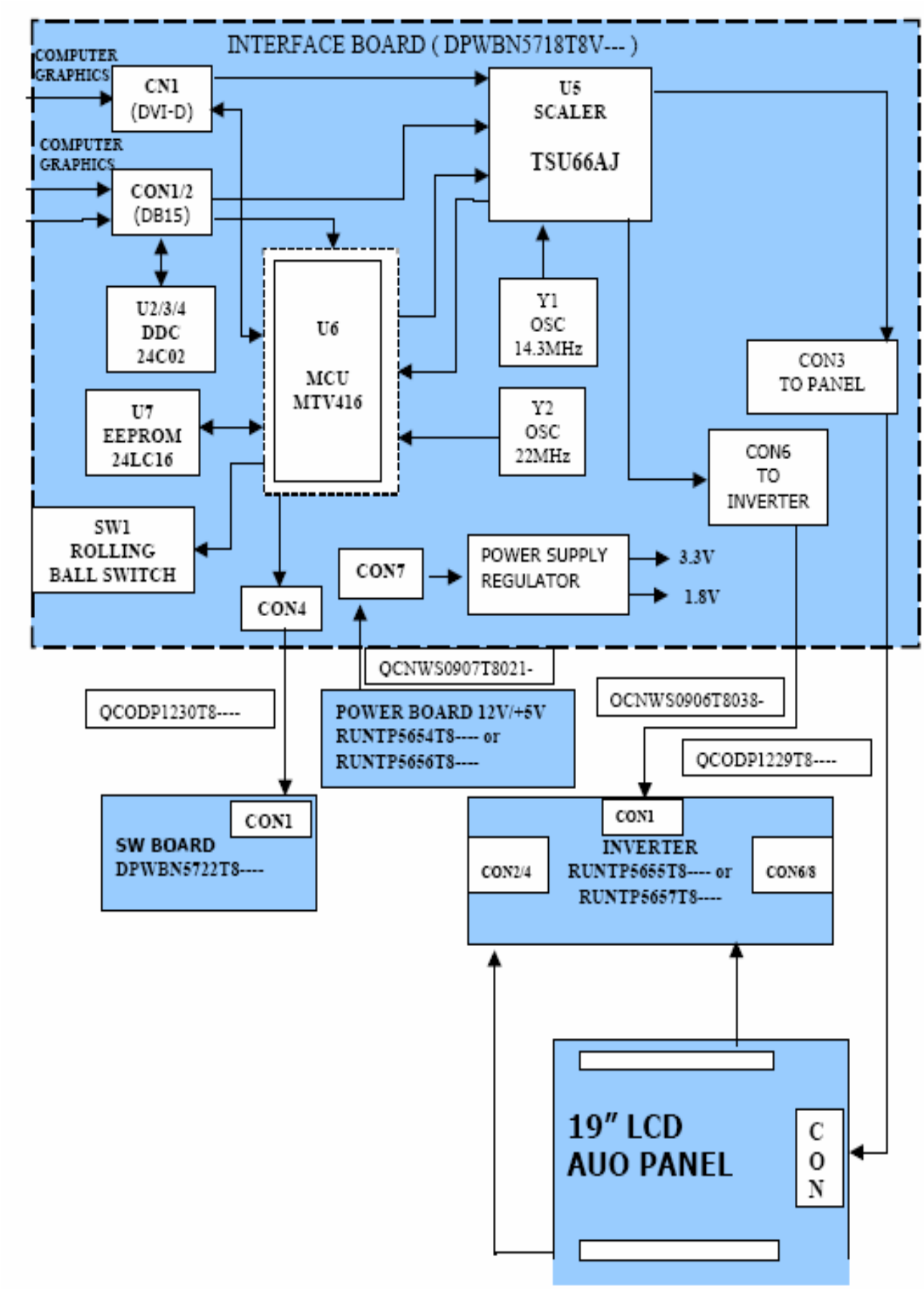
Take off D-sub 6 screws

Remove the power board by 3 screws

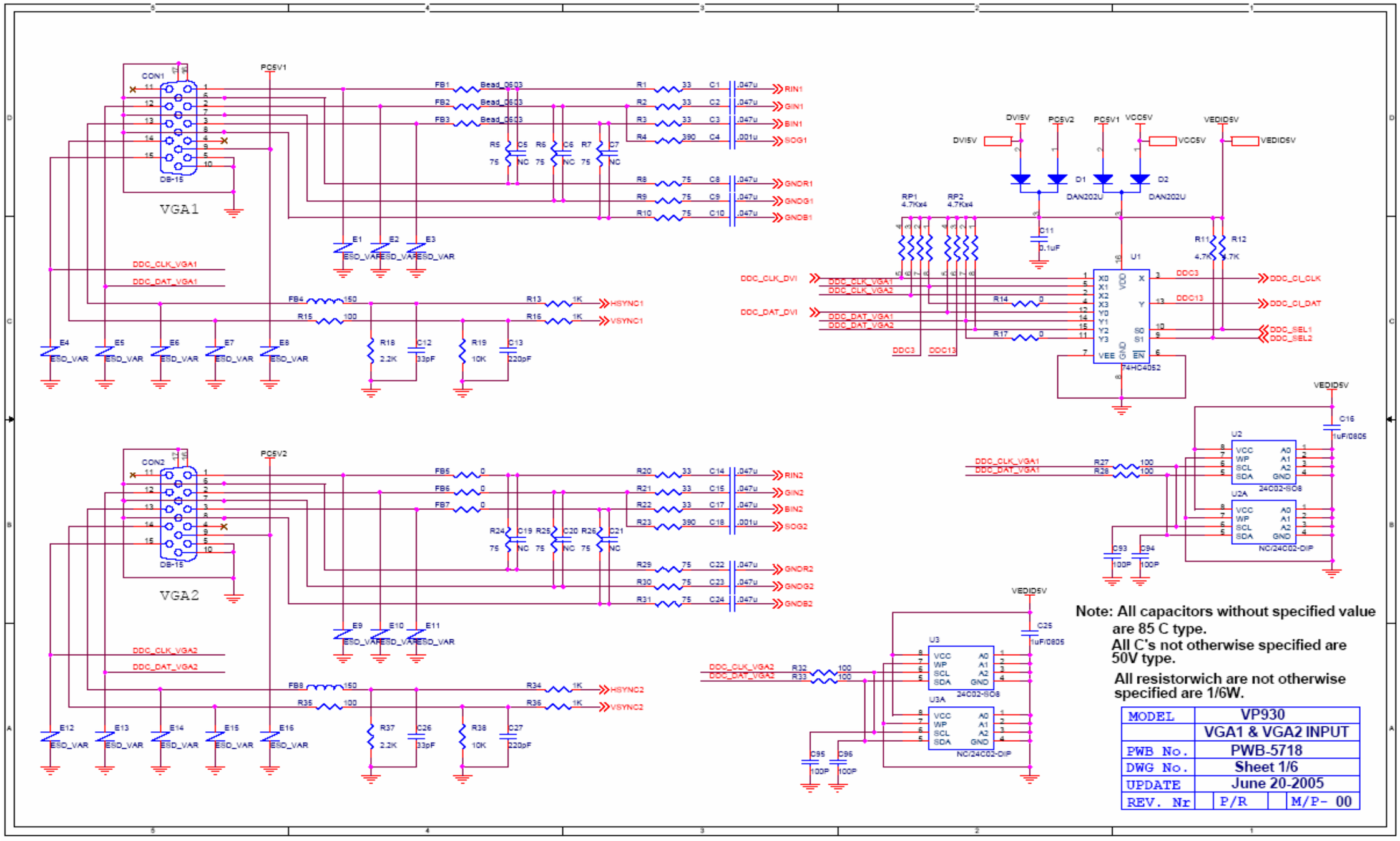
Remove the Inverter board by 2 screws

Remove the I/F board by 2 screws

9. Block Diagram

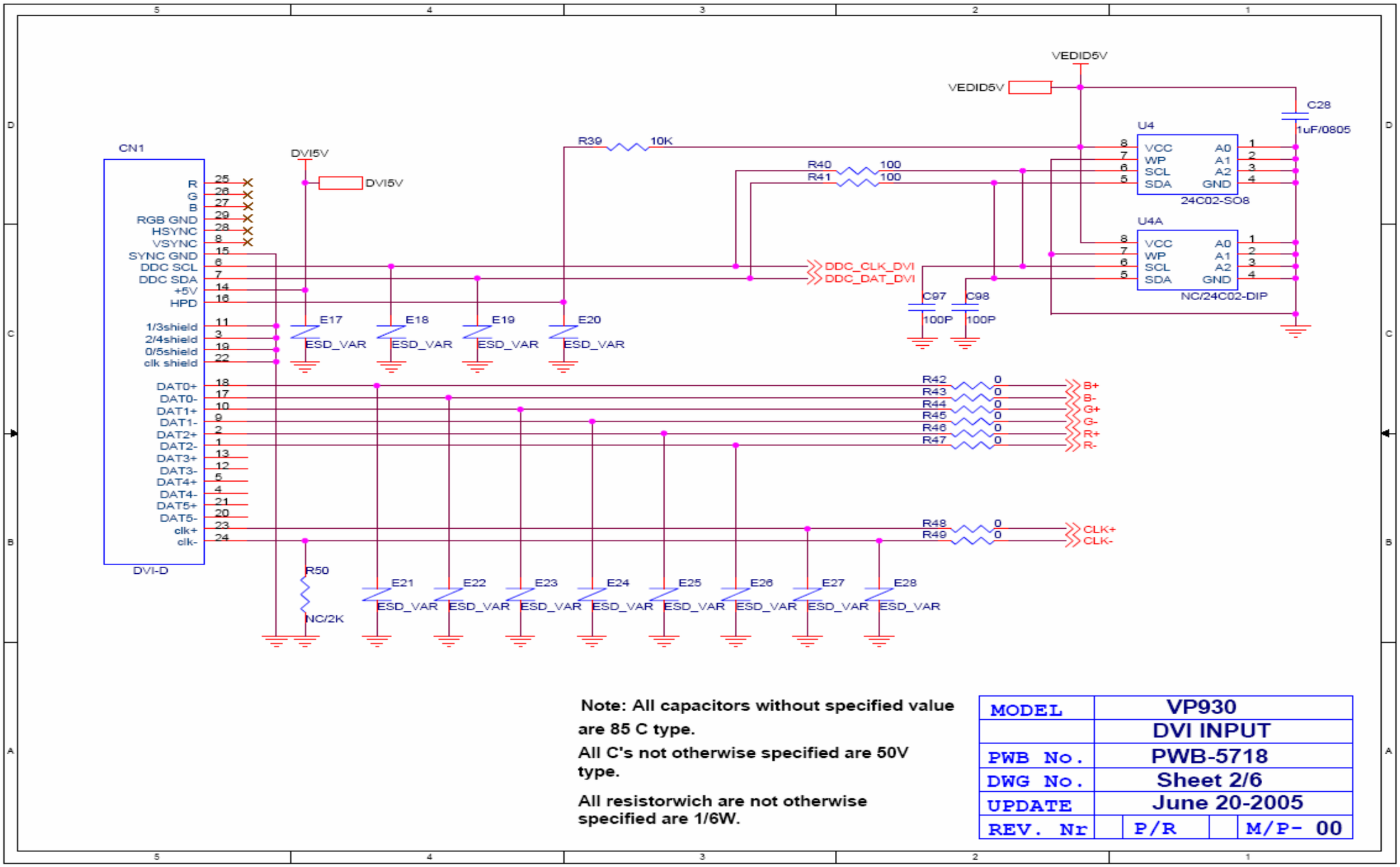


10.Schematic Diagram



Note: All capacitors without specified value are 85 C type.
All C's not otherwise specified are 50V type.
All resistorwich are not otherwise specified are 1/6W.

MODEL	VP930
	VGA1 & VGA2 INPUT
PWB No.	PWB-5718
DWG No.	Sheet 1/6
UPDATE	June 20-2005
REV. Nr	P/R | M/P- 00

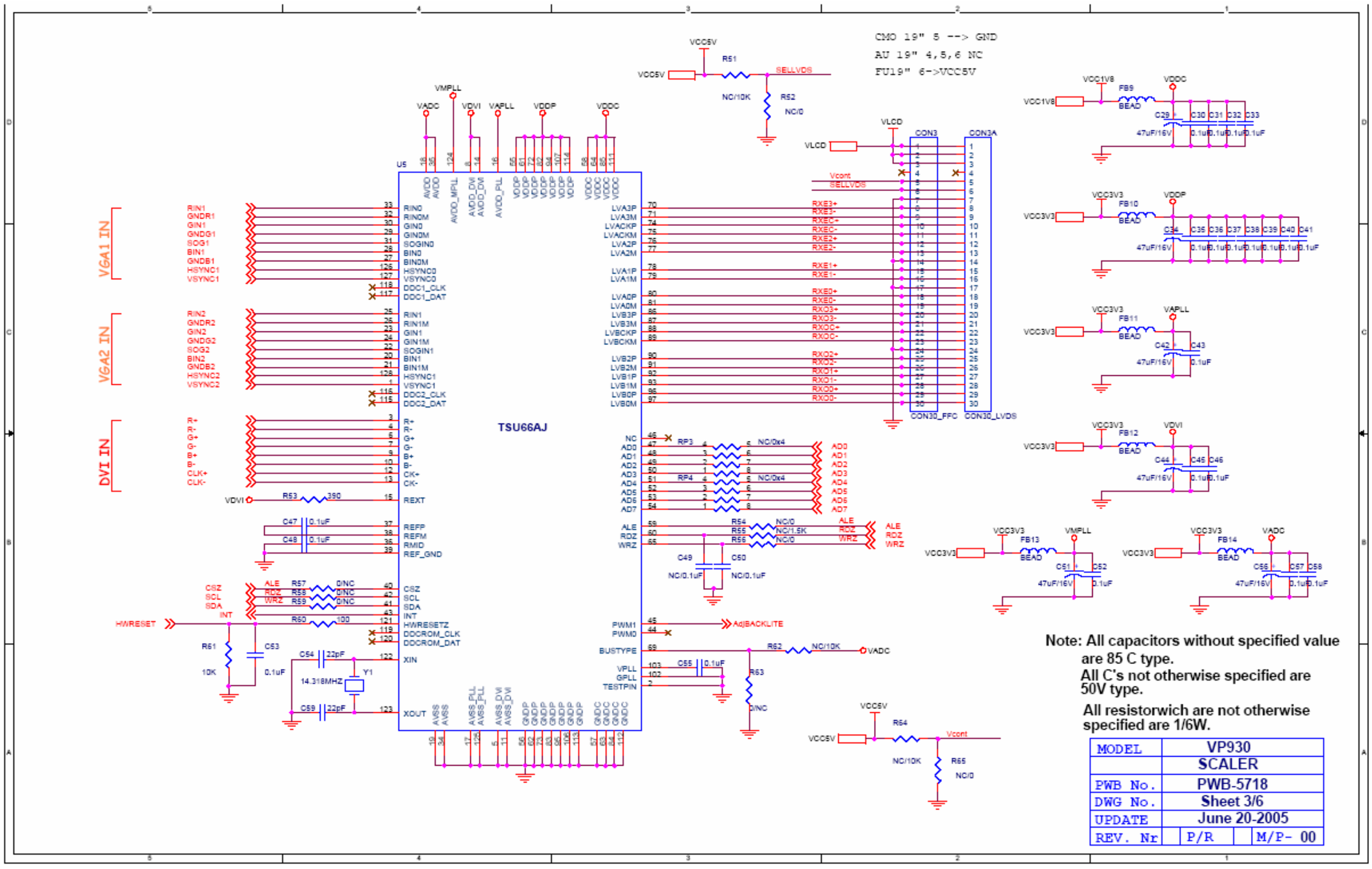


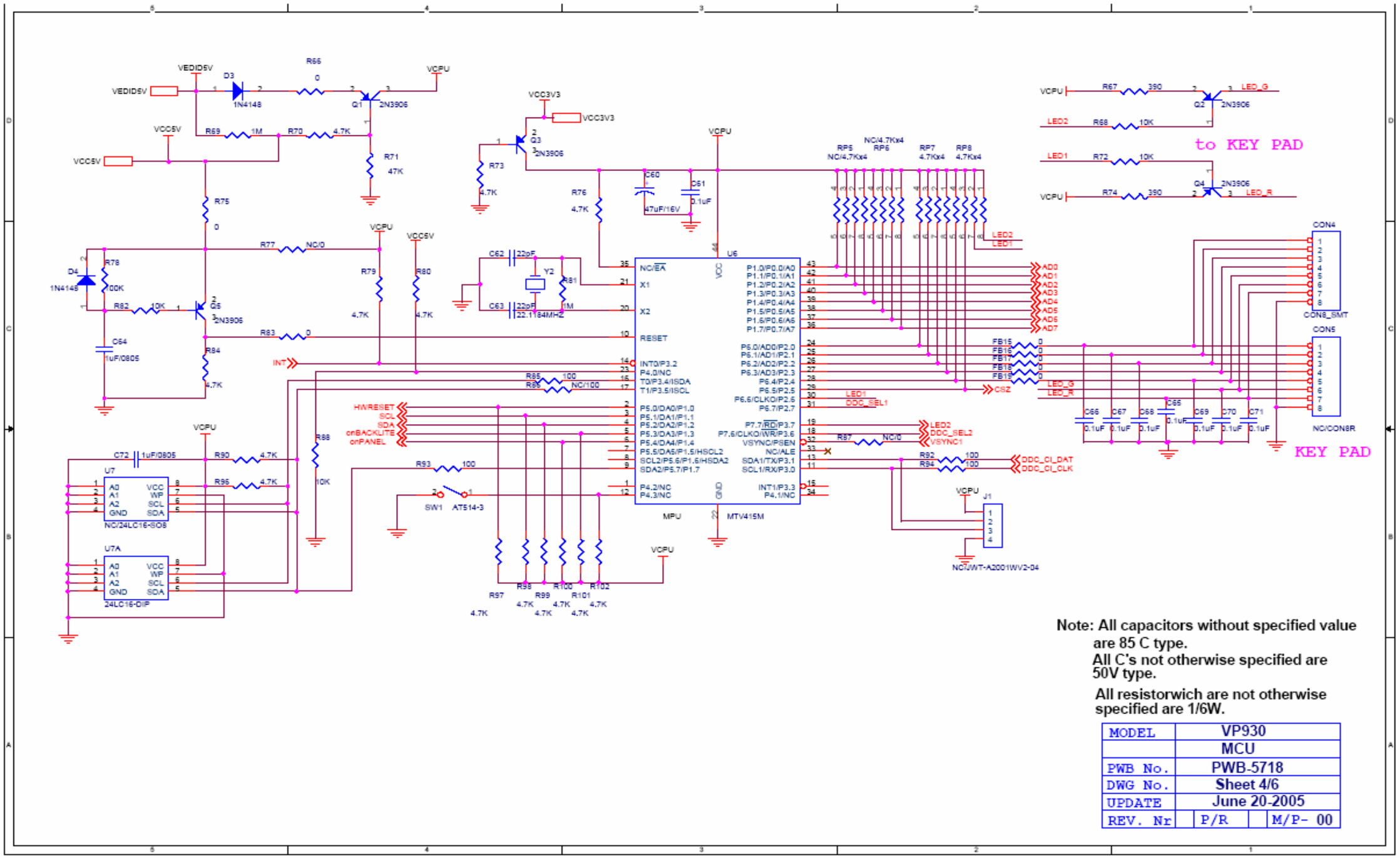
Note: All capacitors without specified value are 85 C type.

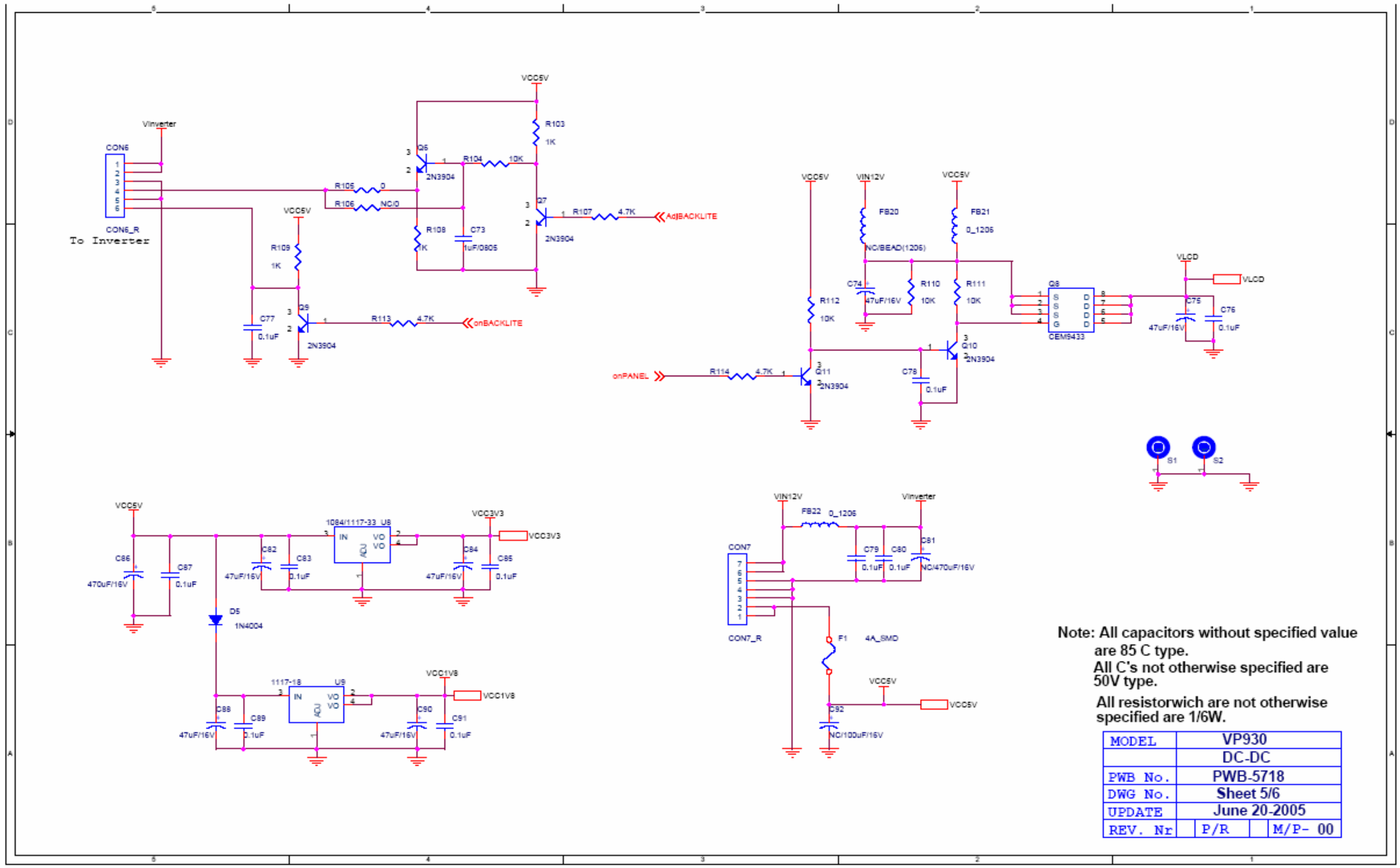
All C's not otherwise specified are 50V type.

All resistorwich are not otherwise specified are 1/6W.

MODEL	VP930
	DVI INPUT
PWB No.	PWB-5718
DWG No.	Sheet 2/6
UPDATE	June 20-2005
REV. Nr	P/R M/P- 00

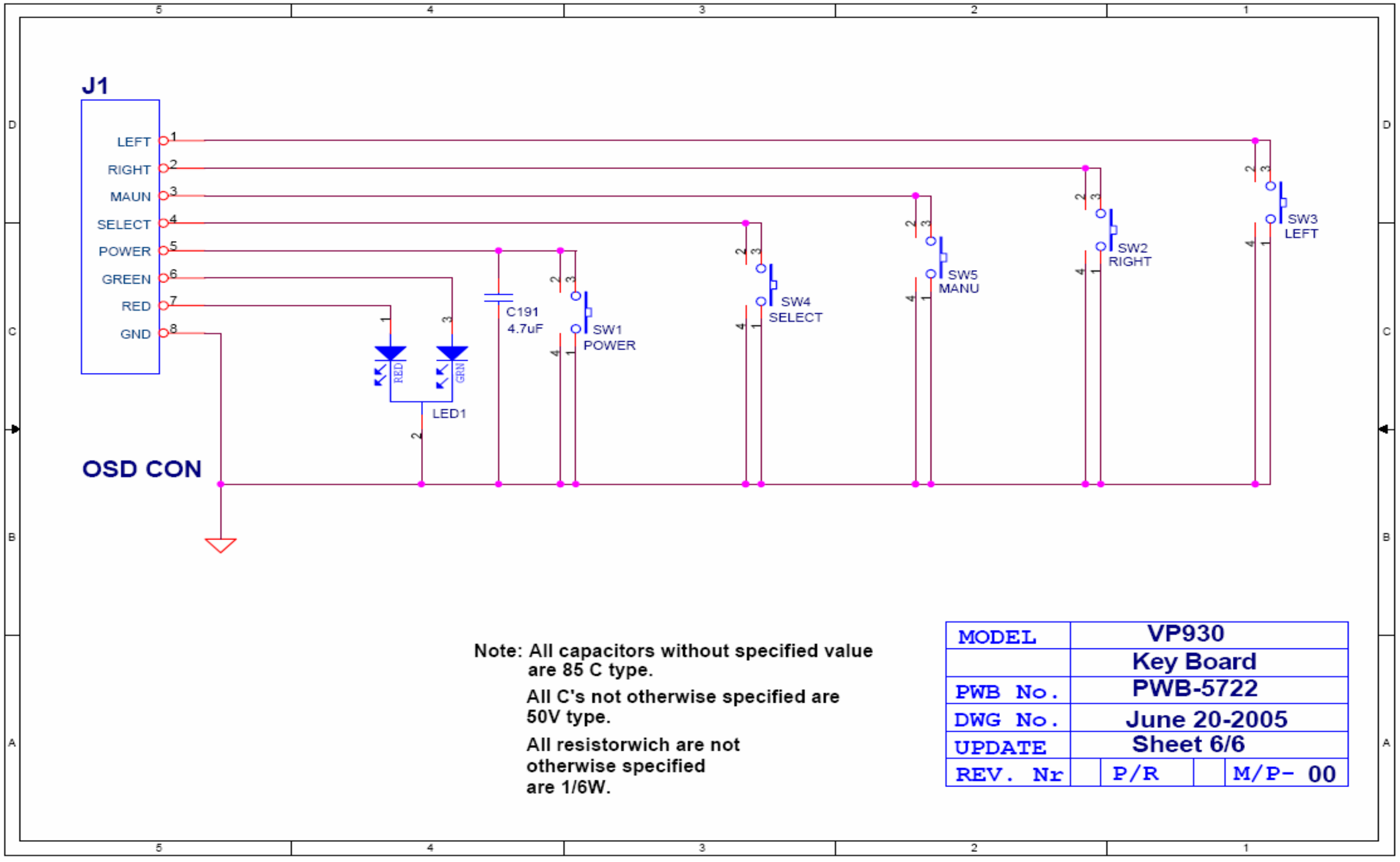

CMO 19" 5 --> GND
AU 19" 4,5,6 NC
FU19" 6->VCC5V
TSU66AJ
U5
VGA1 IN
VGA2 IN
DVI IN
RIN1
GNDR1
GIN1
GNDG1
SOG1
BIN1
GNDB1
HSYNC1
VSYNC1
RIN2
GNDR2
GIN2
GNDG2
SOG2
BIN2
GNDB2
HSYNC2
VSYNC2
R+
R-
G+
G-
B+
B-
CLK+
CLK-
VCC5V
R51
NC/10K
SELLVDS
R52
NC/0
VLCD
CON3
CON3A
CON30_FFC
CON30_LVDS
Vcont
SELLVDS
VMPLL
VADC
VDVI
VAPLL
VDDP
VDDC
VCC1V8
VCC3V3
FB9
FB10
FB11
FB12
FB13
FB14
BEAD
C29
C30
C31
C32
C33
C34
C35
C36
C37
C38
C39
C40
C41
C42
C43
C44
C45
C46
C47
C48
C49
C50
C51
C52
C53
C54
C55
C56
C57
C58
C59
C60
C61
C62
C63
47uF/16V
0.1uF
R53
390
R54
R55
R56
R57
R58
R59
R60
100
R61
10K
R62
R63
R64
R65
NC/0
NC/1.5K
NC/0x4
RP3
RP4
DINC
ALE
RDZ
WRZ
CSZ
SCL
SDA
INT
HWRESET
HWRESETZ
DDCROM_CLK
DDCROM_DAT
XIN
XOUT
14.318MHZ
Y1
22pF
AdjBACKLITE
BUSTYPE
VPLL
GPLL
TESTPIN
REXT
REFP
REFM
RMID
REF_GND
DDC1_CLK
DDC1_DAT
DDC2_CLK
DDC2_DAT
HSYNC0
VSYNC0
SOGIN0
SOGIN1
RIN0
RIN0M
RIN1M
GIN0
GIN0M
GIN1M
BIN0
BIN0M
BIN1M
LVA3P
LVA3M
LVACKP
LVACKM
LVA2P
LVA2M
LVA1P
LVA1M
LVA0P
LVA0M
LVB3P
LVB3M
LVBCKP
LVBCKM
LVB2P
LVB2M
LVB1P
LVB1M
LVB0P
LVB0M
RXE3+
RXE3-
RXEC+
RXEC-
RXE2+
RXE2-
RXE1+
RXE1-
RXE0+
RXE0-
RXO3+
RXO3-
RXOC+
RXOC-
RXO2+
RXO2-
RXO1+
RXO1-
RXO0+
RXO0-
AD0
AD1
AD2
AD3
AD4
AD5
AD6
AD7
Note: All capacitors without specified value are 85 C type.
All C's not otherwise specified are 50V type.
All resistorwich are not otherwise specified are 1/6W.
MODEL VP930
SCALER
PWB No. PWB-5718
DWG No. Sheet 3/6
UPDATE June 20-2005
REV. Nr P/R M/P- 00


to KEY PAD
KEY PAD
Note: All capacitors without specified value are 85 C type.
All C's not otherwise specified are 50V type.
All resistorwich are not otherwise specified are 1/6W.
MODEL VP930
MCU
PWB No. PWB-5718
DWG No. Sheet 4/6
UPDATE June 20-2005
REV. Nr P/R M/P- 00



Note: All capacitors without specified value are 85 C type.
All C's not otherwise specified are 50V type.
All resistorwich are not otherwise specified are 1/6W.

MODEL	VP930
	DC-DC
PWB No.	PWB-5718
DWG No.	Sheet 5/6
UPDATE	June 20-2005
REV. Nr	P/R | M/P- 00



Note: All capacitors without specified value are 85 C type.

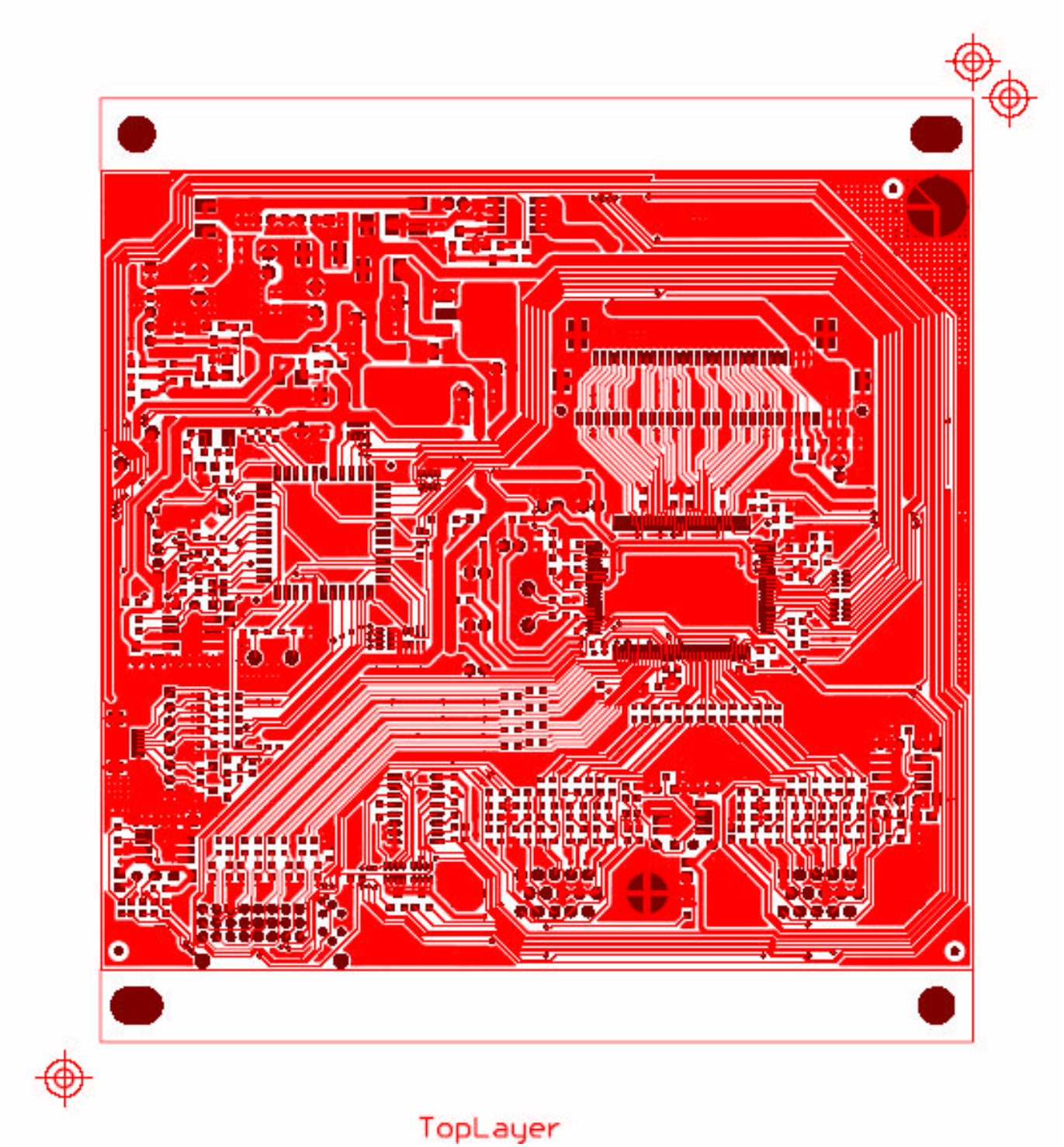
All C's not otherwise specified are 50V type.

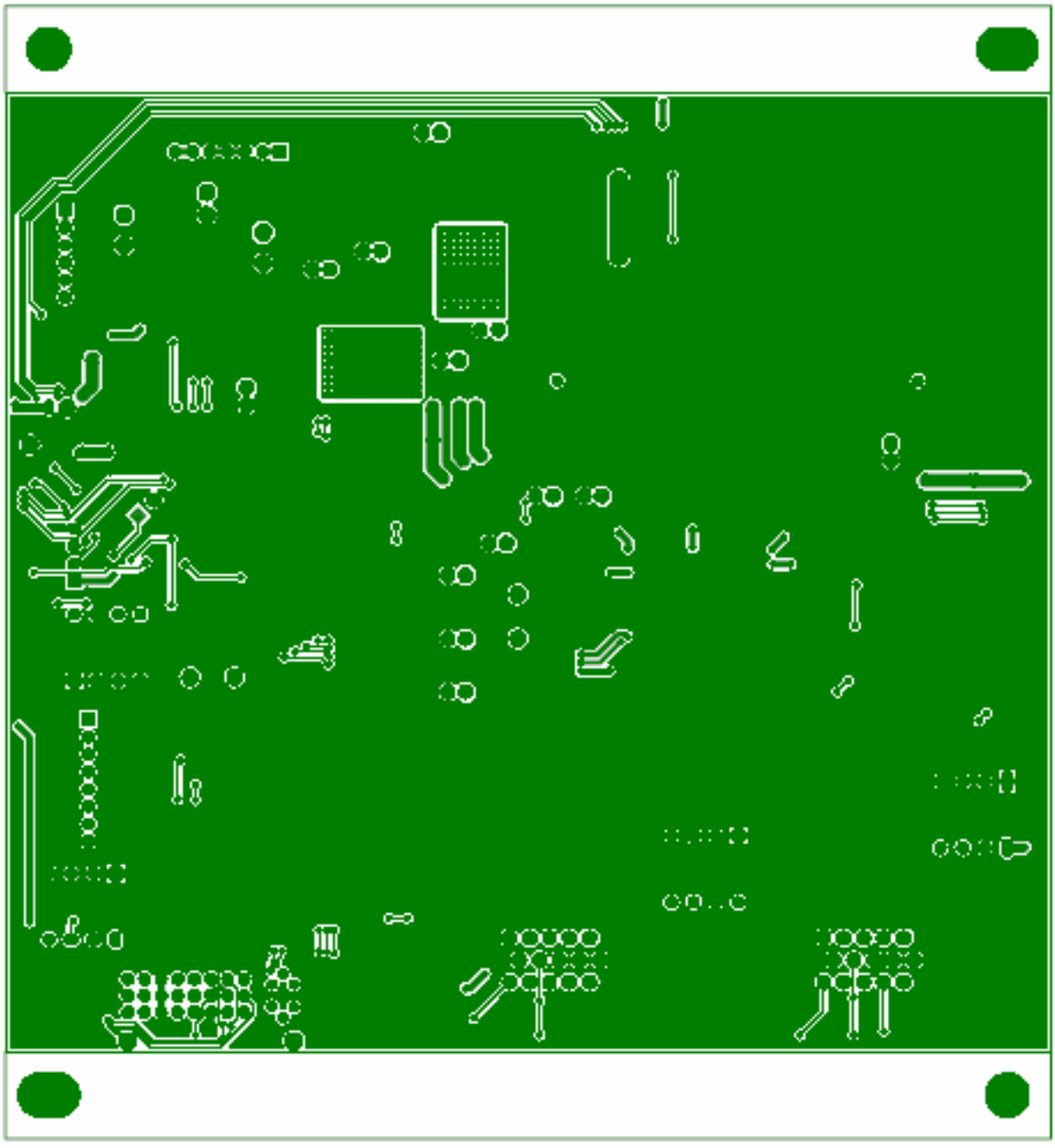
All resistorwich are not otherwise specified are 1/6W.

MODEL	VP930
	Key Board
PWB No.	PWB-5722
DWG No.	June 20-2005
UPDATE	Sheet 6/6
REV. Nr	P/R M/P- 00

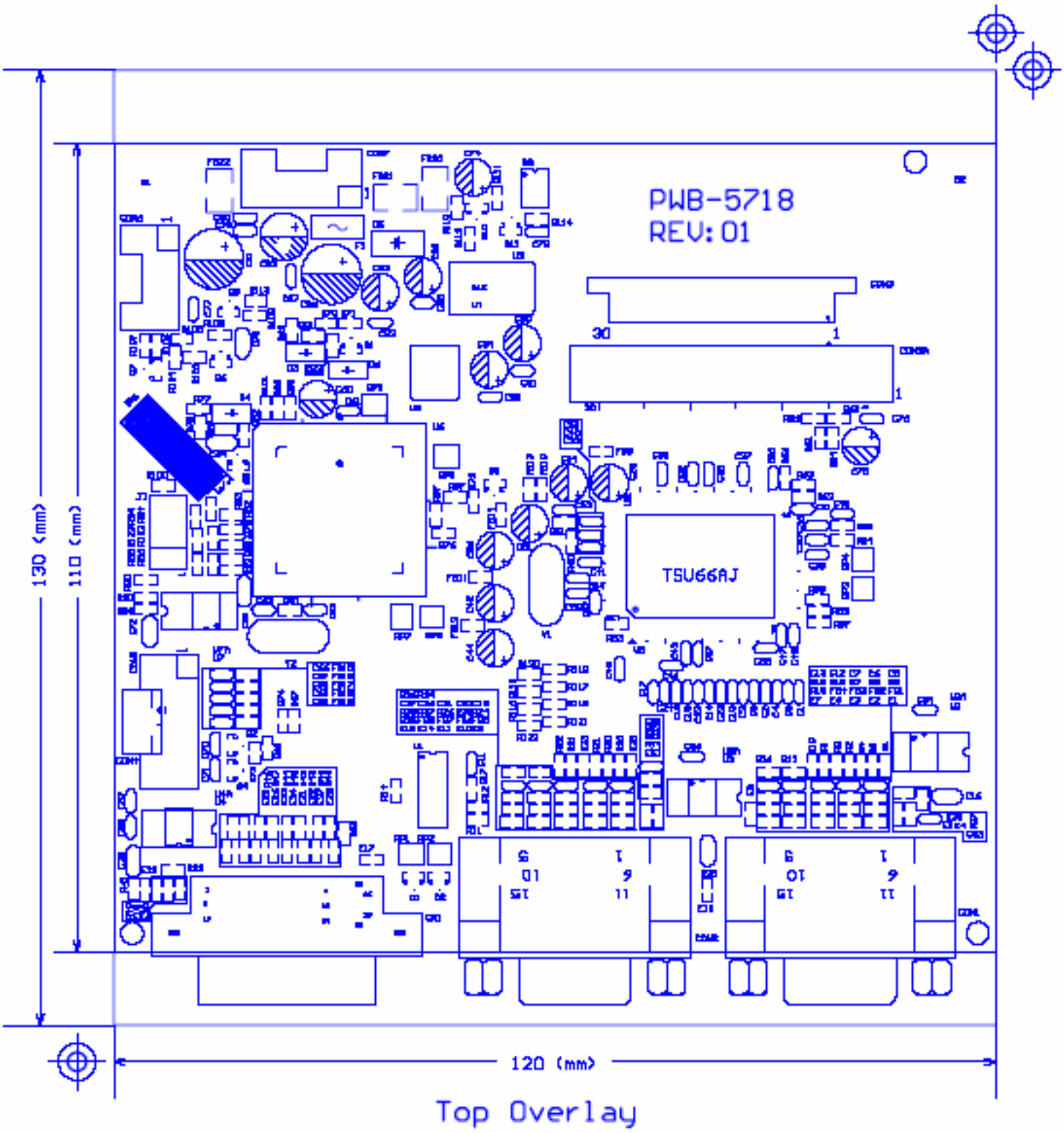
11. PCB Layout Diagrams

IF-board

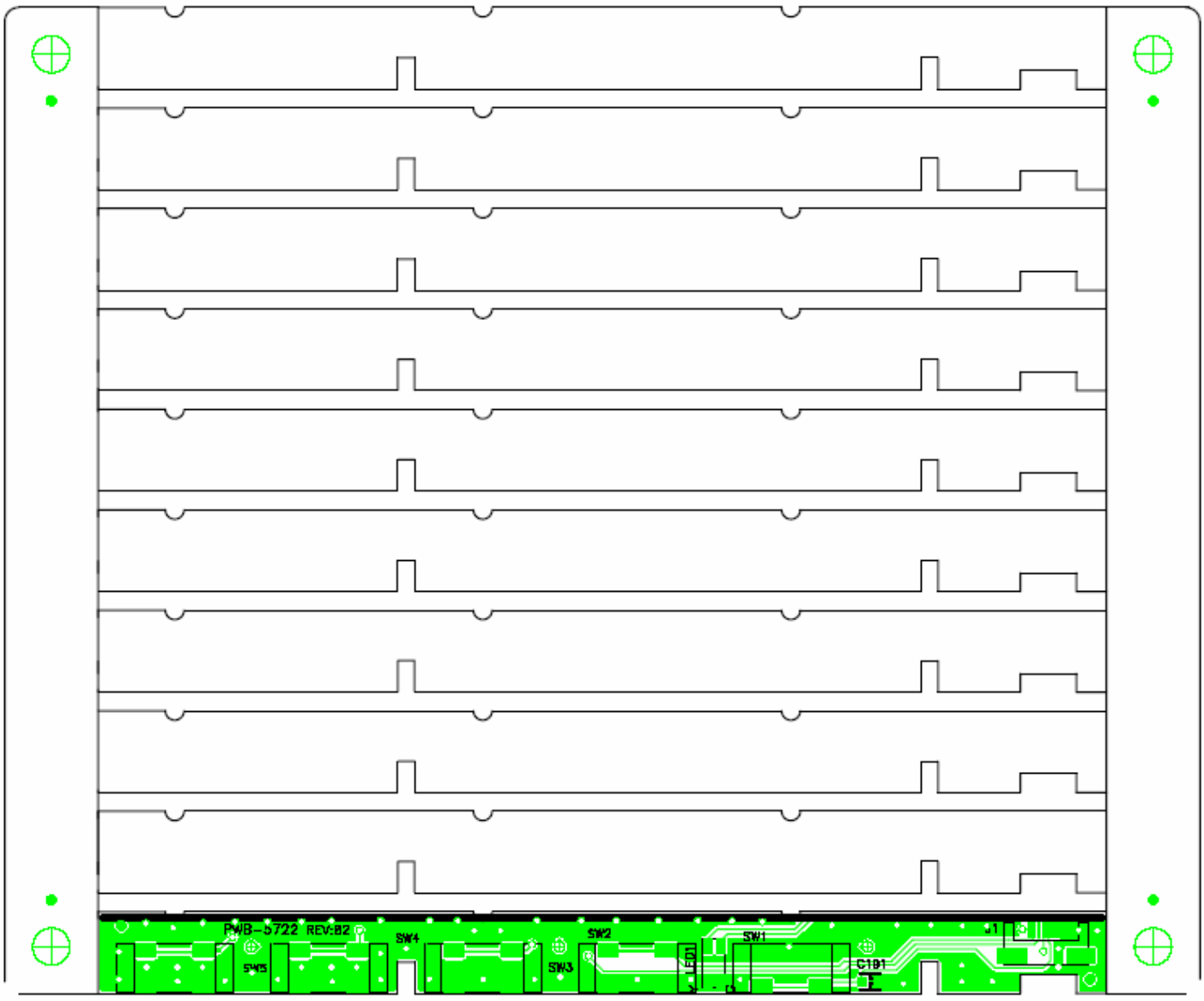


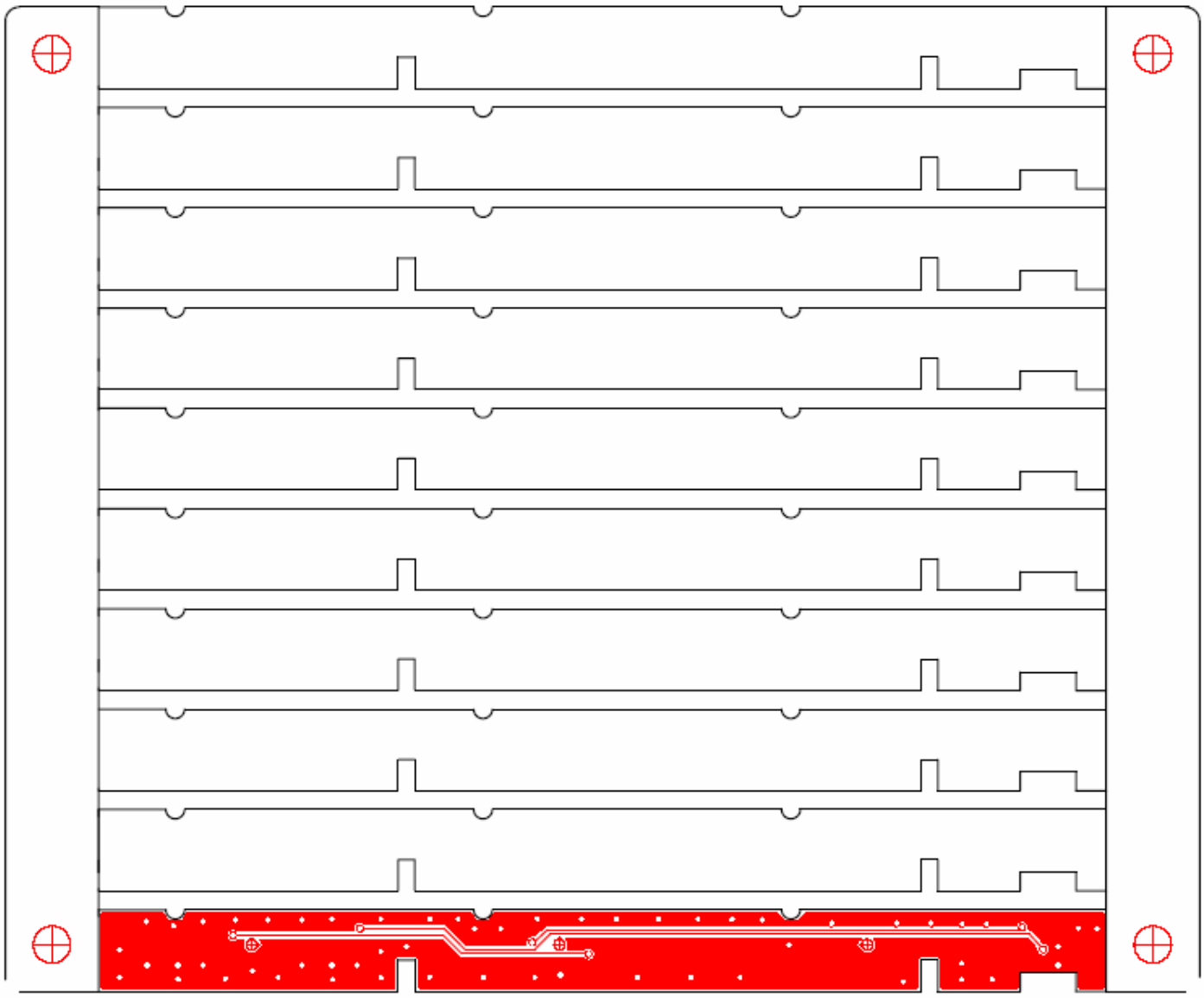


BottomLayer


PWB-5718
REV: 01
TSU66AJ
130 (mm)
110 (mm)
120 (mm)
Top Overlay

Key board





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Assessment

A. What do you think about the content of this Service Manual?

Unit	*Excellent*	*Good*	*Fair*	*Bad*
1. Precautions and Safety Notices				
2. Specification				
3. Front Panel Function Control Description				
4. Circuit Description				
5. Adjustment Procedure				
6. Troubleshooting Flow Chart				
7. Recommended Spare Parts List				
8. Exploded Diagram and Exploded Parts List				
9. Block Diagram				
10. Schematic Diagrams				
11. PCB Layout Diagrams				

B. Are you satisfied with this Service Manual?

Item	*Excellent*	*Good*	*Fair*	*Bad*
1. Service Manual Content				
2. Service Manual Layout				
3. The form and listing				

C. Do you have any other opinions or suggestions regarding this service manual?

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Company:			
Add.:			
Tel:		Fax:	
E-mail:			

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